THE **FUTURE** OF **INTERACTIVE** ENTERTAINMENT

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EDGE

DREAMCAST ■ PLAYSTATION ■ NINTENDO 64 ■ PC ■ ARCADE ■ ONLINE



Battle station

Inside: Sony's power tower and its bid to take over the world (plus what Nintendo, Sega and Microsoft plan to do about it)



Atari versus Coleco and Mattel, Sinclair versus Commodore, Commodore versus Atari. The history of computer and videogaming is strewn with conflict, and in each case a clear victor has emerged.

And so it was that Sony made its PlayStation the platform of choice. Now it seems that nothing can stand in the company's way as it seeks to lay down the future of videogaming upon the foundations it has meticulously built.

Which won't stop Nintendo, Sega, and possibly Microsoft from trying to make the future their own, of course. Despite facing overwhelming odds, these companies refuse to roll over and get out of the way of Sony's steamroller. Instead they are engineering their own technologies for the new millennium, battening down the hatches and opening up their creative minds.

In another industry, going up against a company with Sony's track record – and the potential its new format patently holds – would seem folly. But this industry is like no other. Its youth affords it an enormously appealing naivete.

Few people working within its realms truly know where it's going. Sure, they know in which directions they wish it to head, but envisioning change and actually making it happen are two very different things.

Sony's plans are the most ambitious, and this month **Edge** pits the company's hardware and strategies against those of its rivals, and offers a view of how the videogaming landscape will look once the biggest conflict of all time is resolved.

The casualties may be extraordinary, but, like all wars, it promises to be an engrossing engagement.

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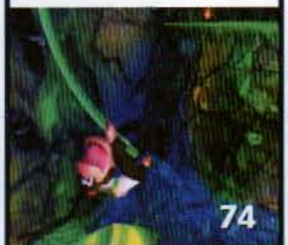




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RAYMAN 2



PRESCREENS 15

***Sega GT, Duke Nukem Forever, Quake III: Arena, Munch's Oddysey, Daikatana, Wheel of Time, Medal of Honor, Spider-Man* and more**

MUNCH'S ODDYSEY



SPIDER-MAN



SEGA GT





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About a Boy 56

Meet the codeshop making a mint from 8bit

Cutting Edge

Cutting Edge Cutting Edge Cutting Edge Cutting Edge Cutting Edge Cutting Edge Cutting Edge

The latest news from the world of interactive entertainment

SEGA KEEPS DREAMING AS UK EMBRACES 128BIT

A quarter of a million consoles shift throughout Europe but Dreamcast's localisation lockout is already defeated









It was a long night for retailers, with stores staying open into the early hours. After two days, 63,000 consoles had been sold in the UK. (Top left) Sega added to the carnival atmosphere with a group of stilt walkers. (Centre left) The first Dreamcast owners at Tower Records in London's Piccadilly Circus



Yukawa Hidekazu, Sega's executive managing director, and Isao Okawa, Sega Enterprises chairman, with friends, give the UK launch a thumbs up

Sega is relying on its TV ad campaign and the release of AAA titles such as Namco's *Soul Calibur* to build on its strong European launch and take the new console into a successful Christmas period.

Sales figures for Dreamcast's first two weeks on sale reveal Sega has sold 260,000 consoles across Europe – out of an initial ship out of 326,000. Of those, 95,000 have been sold in the UK – just below a predicted 100,000 units.

The launch was carried out in a characteristically high-profile manner with London's Oxford Street the centre of Sega's activity. Events took place at Virgin Megastore, which was renamed Segastore for the day of the launch, and Tower Records' Piccadilly Circus store.

Surprisingly, much of the launch attention focused on Midway's *Ready 2 Rumble Boxing*. This was thanks to the celebrity rematch of ex-middleweight boxers Chris Eubank and Nigel Benn, held at Segastore. (Eubank won the brief three-round bout.) And although *Sonic Adventure* was the first choice of game for the first week, selling 86,000 copies across Europe in the first five days, the following weeks saw *Ready 2 Rumble* as the UK's top-selling Dreamcast title.

Prior to midnight the action switched to carnival mode at Piccadilly Circus, thanks to Sega's stilt-walking cyberpunks, a posse of tribal drummers and large groups of bewildered German tourists. Benn and Eubank also changed location, with Eubank taking over half an hour to drive his American truck the mile between stores.

Kazutoshi Miyake, Sega Europe COO, told **Edge** that he was very happy with the console's UK launch and fully expected Sega would meet its prediction of selling 400,000 hardware units before the end of the year.

Miyake-san joked that the only problems he was







Chris Eubank and Nigel Benn squared up for a celebrity bout of *Ready 2 Rumble*, while Sega Europe's JF Cecillion and Kazutoshi Miyake discussed business with boss Isao Okawa (left)

expecting concerned the allocation of stock between America and Europe. Sales in the US after two months have topped 750,000, with Sega of America predicting 1.5m units sold by the end of the year and six million by the end of 2000. Sega Europe says it will have shipped a million units by early 2000.

Sega's top brass, including Sega chairman Isao Okawa, president Shoichiro Irimajiri and Yukawa Hidekazu (star of Sega's Japanese adverts), also flew from Japan to enjoy the UK launch. They were in high spirits as they posed for photos with Sega Europe president Jean-François Cecillion and Miyake-san.

Online overload

Unlike the American launch, which was plagued by a considerable run of faulty GD-ROMS, the only problems experienced in Europe were initial difficulties registering on its Internet service.

Despite having put back Dreamcast's release date three weeks to test its online aspects, BT's servers were overwhelmed by the demand, with 1.2m Internet minutes clocked on the Dreamcast service over the first weekend.

Since then BT has increased the number of servers for Dreamcast users sixfold. Around a third of UK Dreamcast users have registered for the online service.

Peter Moore, Sega of America's senior vice president of marketing, announced that a completely functional online service would not be ready in the US until next autumn. Simple card games will be available around Easter, while direct dial games such as *Sega Rally 2* will be in place by the summer. The full service will launch with *Baldur's Gate* and *Phantasy Star Online*.

In contrast, Sega Europe has said that online games will be available from spring next year, but has not revealed what type of services it will initially offer.

UK preorders topped 40,000 – around one tenth of the total number of units Sega predicted it would sell within a year. Consumer interest in the console was strong in the weeks leading up to October 14

Breaking the lock

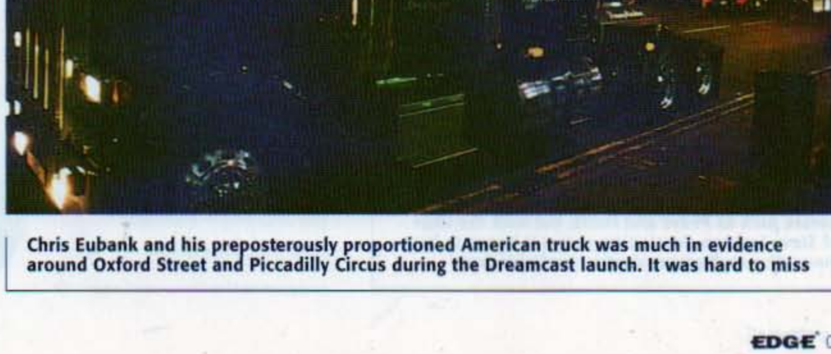
More worrying for Sega is the news that hackers have already found a way around Dreamcast's localisation lockout. Many game import Web sites are listing a step-by-step guide explaining how to disable the console's internal battery and then swap discs to play Japanese and American games.

One source told **Edge**: "It's not that difficult but if you're not familiar with what you are doing you can damage something." A permanent 'chip' solution is expected to reach the market soon. One Internet-based retailer is already preparing to release a 'universal' Dreamcast.

SALES FIGURES

For the last week of October, UK console sales looked like this:

PlayStation: **36,700**
Dreamcast: **16,500**
Nintendo 64: **3,000**



Chris Eubank and his preposterously proportioned American truck was much in evidence around Oxford Street and Piccadilly Circus during the Dreamcast launch. It was hard to miss

MOBILES: THE NEW **GAMING PLATFORM**

More than half a billion Web-browsing phones are predicted to be in use by 2003

Mobile phones and personal digital assistants (PDAs) are about to take a massive leap into Internet browsing, offering multiplayer gaming.

The introduction in December of WAP-enabled (Wireless Application Protocol) mobile phones such as the Nokia 7110, Ericsson R32s, and Siemens S25 will provide opportunities for innovative games – particularly for large-scale multiplayer experiences. More than half a billion WAP phones are predicted to be in use by 2003.

The first company to announce game content for these new phones is Wireless Games, part of Digital Bridges. It is in negotiations with the four big UK mobile service providers and expects to start rolling out its range early next year.

Unique titles

Initially, games will be straightforward. They will include card games such as poker, simple boardgames, and quizzes. Turn-based multiplayer games in development include *Fours*, *Tic-Tac-Toe* and a *Pokémon*-style game called *Monster Mash*.

But more complex titles will follow. Digital Bridges has signed deals with Steve Jackson of Lionhead Studios, and Adam Mayes (ex-SCi) to develop unique multiplayer titles.



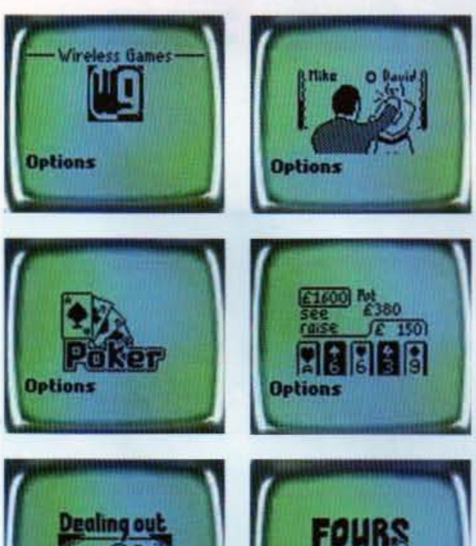


One of the benefits of WAP-enabled mobiles such as the Ericsson R32s (above) is the opportunity to play games such as *Fight K.O.*

Persistent gaming environments will be a key concept, as they fit well with the function of wireless devices. Realtime games, however, will be limited to advanced PDAs.

Kevin Bradshaw, Digital Bridges' MD, claims that in some of the most advanced games a user's phone will ring when something important happens in the gaming world.

Phone games will start out as poker, simple boardgames and quizzes. More complex titles will follow. In the most advanced games the user's phone will ring when something important happens in the gaming world



Wireless Games' initial offering includes simple games such as *Poker* and *Fours*, but with the likes of Steve Jackson developing games it hopes to have innovative multiplayer content available soon

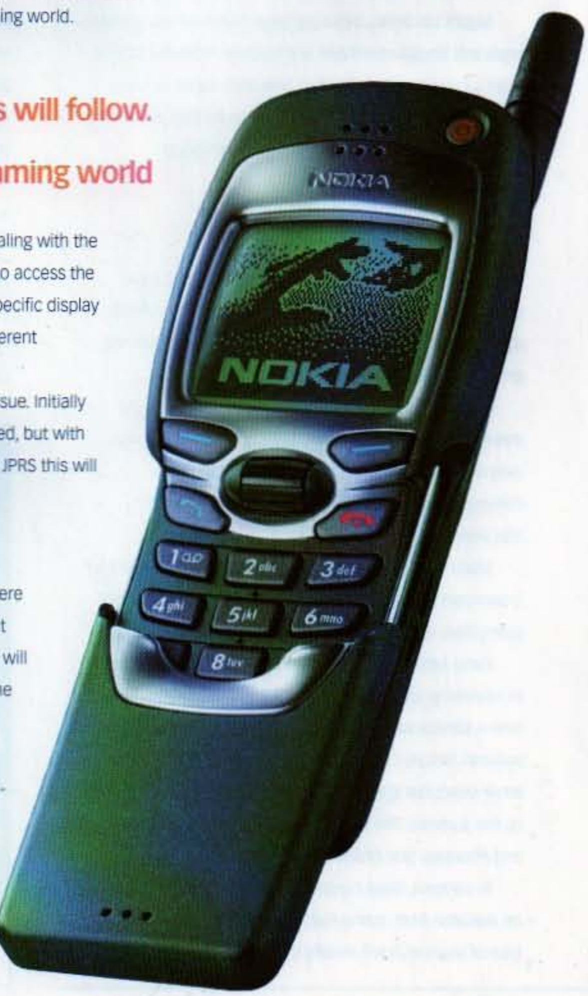
One of the main difficulties will be dealing with the range of mobile phones that will be able to access the service. Digital Bridges expects to build specific display interfaces, although devices will have different capabilities depending on screen size.

Connection speed could also be an issue. Initially two speeds, 9kps and 64kps, will be offered, but with the adoption of network services such as JPRS this will rise to 384kps.

Big in Japan

Similar moves are happening in Japan where Konami has recently announced a content deal with NTT. Its mobile network, i.mode, will launch in January and offer a version of the hugely successful *Tokimeki Memorial* high-school dating simulation.

Other services, such as fortune telling, will be available for an extra fee. Nintendo and Bandai are developing mobile phone adaptors for Game Boy Color and WonderSwan handhelds, respectively.



ZELDA AND LARA CROWNED BY BAFTA

Landslide for Miyamoto's masterpiece and ex-Core coders at second BAFTA awards

As predicted by **Edge** (**E**75) *The Legend of Zelda: Ocarina of Time* swept the BAFTA's second Interactive Entertainment Awards. It scooped four awards – Interactivity, Innovative Game, Computer Programming, and Game of the Year.

Other notable winners included Reflections' *Driver* for the Moving Image award, while the Design award went to Psygnosis (as aided by Designers' Republic) for *Wipeout 3*. Rockstar picked up the Sound award for its *Grand Theft Auto: London 1969* mission disc.

The most deserved award, however, went to Toby Gard and Paul Douglas, who won the Tim Berners-Lee award for Best Personal Contribution to the UK Interactive Industry for their gaming heroine, Lara Croft.

Despite the worldwide success of the *Tomb Raider* series, Gard and Douglas' original role has seldom been highlighted. The pair left Core in 1997 to set up their own studio, Confounding Factor. Its debut title, *Galleon*, is scheduled to be released by Interplay next year.

Bizarrely, Rare won the Best UK Developer award for the second year running. This was despite the fact that the company hadn't released any games since *Banjo-Kazooie* back in 1998.

Gongs on TV?

An increasing number of international companies attended the awards and numbers were up on last year. BAFTA is keen to raise the event's public profile.

"Next year we are looking to televise the ceremony. There are an awful lot of avenues still open to us and it is definitely the way ahead," said BAFTA Award officer **Helen Wood**.

"It was a fantastic night and certainly more successful than last year's inaugural interactive event." Negotiations with TV companies have already begun.



Some of this year's winners (clockwise from left): Paul Douglas and Toby Gard; Reflections' Martin Edmondson with Lord Puttnam; and a clearly ecstatic group from Psygnosis Leeds





ADSL: COST UP, SPEED DOWN

BT Interactive's trial takes a turn for the worse – but it's still 'cheap'

BT Interactive's ADSL trial has ended its final phase, prior to the rollout of a commercial service in spring next year. But it has angered many rivals by increasing the monthly cost of the service while lowering its performance.

As reported in **Edge** (**E**77), the initial beta trial cost £30 per month for download bandwidth of 2mps. The new service will cost £50 for a download bandwidth of 512kps. BT Interactive maintains that the new tariff is a much more realistic reflection of the cost of a commercial ADSL service.

Freeserve has also announced details of its ADSL trial. This will cost £60 a month for 512kps download and 256kps upload bandwidth, and be available to users in north and west London and Manchester until March. Easynet's trial offers a free 2mps/256kps service for the first three months before requiring users to sign a £2,000 six-month agreement.

The biggest barrier to a commercial service remains BT's exchanges. By spring, 400 exchanges should be able to support the service, accounting for six million homes and businesses – 25 per cent of the UK population.

ADSL

BT interactive

easynet

freeserve

From spring, there should be a number of firms offering ADSL services. But the vital question concerns the pricing and speed of the connections offered. Of the current trials, despite having gone up in price, BT Interactive's remains cheapest

NINTENDO PREPARES FOR RANDNET

N64 finally gets online with the release of a 64DD modem in Japan

With Nintendo's 64DD hardware finally reaching release, details have emerged concerning the system's online aspects.

Dubbed Randnet, the online service is being provided by Nintendo and Recruit. Preorders for the special starter kit were taken from November 11. The service will go live on December 1 when the 64DD is released.

The starter pack consists of a 64DD system, a modem, a 4Mb Expansion Pak, a mouse and a Randnet access disc. Two games, *Kyojin No Doshin* and *Mario Artist: Paint Studio*, are also included. Nintendo has yet to confirm the price of the starter kit.

Service charges have been set for various items which can be rented. The basic charge is ¥1,500 (£9) a month for people who own a 64DD and modem. At its most expensive, the package costs ¥3,300 (£19) for rental of both the 64DD, modem and connection.

Initially, only 100,000 memberships to Randnet are being offered, on a first-come, first-served basis, but only users in the Tokyo area will be able to use the service. The offer, which will end on January 11, offers multiplayer games and also includes email, Internet browsing and digital magazines.

Other special software downloads will be made available later in the year for games such as *F-Zero X Expansion Pack*, *Sim City 64* and the other *Mario Artist* titles: *Talent Studio*, *Polygon Studio* and *Sound Studio*.

A year after the service is established Nintendo will release key software titles which will be available only via download.







Japanese gamers must live in Tokyo and have a 64DD starter kit to get the most from Nintendo's online service, at www.randnetdd.co.jp

'ADULT' GAMING HITS HANDHELD WORLD

Stealing cars and shooting policemen isn't for kids, even when it's on a Game Boy Color

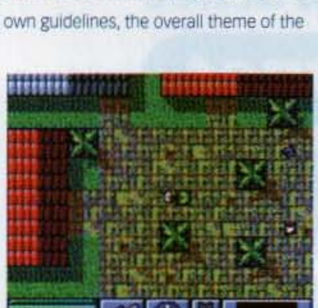
DMA's controversial *Grand Theft Auto* has once again come under fire from the industry's regulatory bodies, although this time it's the Game Boy Color version that has caused the trouble.

Despite the title's content being significantly toned down to meet the younger age demographic of the Game Boy, the Video Standards Council still gave the game a 15+ rating. It decided that, in contrast to its own guidelines, the overall theme of the game in the case of *GTA* – stealing cars and shooting people – should be taken into account, not just specific scenes of violence within the game.

Take 2, the game's publisher and new owner of DMA, appealed against the 15+ rating but the VSC's decision was upheld. It was the first time a rating decision had been appealed against since the VSC was set up in 1994. It will now inform developers of the changes to its rating system in light of the decision.

"We felt well within our right to take the overall theme into account when rating *GTA*," said **Laurie Hall**, the VSC's secretary general.





It may look pretty but, according to the Video Standards Council, only gamers older than 15 may indulge in the Game Boy Color version of *GTA*

CUTTINGS

Gran Turismo 2 no show
In a major blow to Sony's Christmas plans, *GT2* has been delayed until January 14 in Japan and January 28 in Europe. Producer Kazunori Yamauchi does not want to release code until he is completely satisfied.

Dolphin chips in
In a deal reportedly worth more than ¥300bn (£1.8bn), NEC and Nintendo have agreed to build a new plant by next summer to supply memory chips and graphics cards for the Dolphin console.

Based on 0.13-micron technology, the plant will be capable of producing 10,000 eight-inch wafers per month.

Just say no to online artefacts
EverQuest developer 989 Studio has attempted to curtail players trading characters and property on the Net auction site eBay. "We just wanted to warn players," said **Michael Lustenberger**, 989's director of marketing. "We see a lot of people getting ripped off." Some 1,400 *EverQuest* items and characters are on sale at eBay.

Goodbye Sega, hello Fun
London Trocadero Segaworld has reverted back to its original owner, Funland.

The move is in line with Sega's global retreat from arcades following large losses last year and a strategic refocusing towards Dreamcast.

Homegrown Dreams
Bit Laboratory has announced that it is working on amateur programming tool *Game BASIC* for next-generation machines such as Dreamcast. Its Saturn *Game BASIC* allowed home coders to make simple games.

Animated memories
A small Japanese developer has released downloadable code allowing Dreamcast owners to create their own bitmap VMU animations. The *Windows*-based program is in Japanese, but may be translated soon. More info: **http://www.gameportal.net**

PRESCREEN

EDGE PREMIERES INTERACTIVE ENTERTAINMENT'S FRESHEST FACES

Jumping through the screen

Game worlds are becoming more realistic, but are they more believable?

Since games moved into 3D, the rules began to change, and the distance between the onscreen character and the flesh-and-blood player shrank. Now, the *raison d'etre* for playing a game is the fantasy of being someone else – someone who drives a touring car, is a heroic warrior, goes out shooting zombies, or scores the winning goal in the world cup final. As Sony's mental wealth ad says, it's all about landing on your own moon.

Which makes it all the stranger that many games pay so little attention to this fundamental issue. It seems to be a given that a storyline knocked out by a failed English graduate, some dodgy character renders, and a celebrity tie-in will be sufficient to draw players into a role they are expected to play for 20 or 30 hours.

What most developers are misunderstanding is that games are not the same as movies or books. In these traditional media, the audience has to associate itself with the characters. For the connection to be made, they must want to get involved. But the interactivity of games turns the tables. Gamers need to be convinced that they are the protagonist. It's easy to play games that make no emotional demands, though. For as long as you can be bothered, play the game as though it is an interactive movie. Just been killed? Who cares? Just reload and try again.

But when games work, closure between player and character is total. When they are attacked, you flinch. Ever dreamed about a computer game character? Or, better still, ever had a nightmare about one?

It's something the Japanese seem to do instinctively. And it's the small touches that count. For example, *Legend of Zelda*, *Pokémon* and the *Final Fantasy* series allow players to personalise the name of their character, their travelling companion or pocket monsters. Suddenly, the whole game universe is changed. The real world collides with game fantasy. The rival Pokémon trainer is a doppelgänger of your brother; Rinoa in *Final Fantasy VIII* is your girlfriend.

Western games, however, follow the traditional route of hero worship. No one could ever be Duke Nukem, James Bond or even Gordon Freeman, and frankly who wants to be? Game characters become a disguise to be worn for a few hours after work. It's no different to watching Arnie take out the Predator. But stories aren't convincing without believable character. And what character is more believable than yourself?







While a character in one sense of the world, *Duke Nukem* (left) is the epitome of a western trend that treats games as movies. Instead, games such as *Pokémon* and the *Final Fantasy* series get personal

Edge's most wanted

Sparks on the blue touchpaper



Medal of Honor

(PS) DreamWorks

Spielberg shows he can work his magic on games with this WWII shooter. The missions are addictive, gameplay is tense, and the AI matches *GoldenEye*.



Sega GT

(DC) Sega

Edge is intrigued about the possibility of a Sega version of *Gran Turismo*, even if it turns out rather arcade-like (given who the secret developer may be).



Halo

(PC/Mac) Bungie

Go anywhere and drive any vehicle while taking out aliens across a ring-shaped planet. *Halo* is one title that will take gaming to a new level.



Munch's Oddysee

(PS2/PC) Oddworld

While sad to see *Oddworld* lose its 2D charms, **Edge** is sure that the additional dimension will be well used, if only to enhance the breaking of wind.

Index

PRESCREEN ALPHAS

THE LATEST IN THE *DUKE NUKEM* AND *QUAKE* SERIES ENSURE IT'S A TANTALISING MONTH FOR PC GAMERS

DUKE NUKEM FOREVER

FORMAT: **PC** DEVELOPER: **3D REALMS**













It's been a long wait, so there was plenty to smile about when the first screens from the delayed next *Duke Nukem* were released. 3D Realms is currently on a big push to upgrade the game engine from *Unreal* to *Unreal Tournament* – but it still expects it will finally get the game out next summer. And to make sure that happens the codeshop has halted all development work on *Prey* (itself a long-in-the-making title). These shots are taken from a PC running a Voodoo 3 at 1024x768 resolution. Textures are 256x256 max.

SEGA GT: HOMOLOGATION SPECIAL

FORMAT: **DC** DEVELOPER: **TBA**











Developed out of house, it's difficult to regard this as anything other than Sega's answer to Sony's *Gran Turismo*. Boasting the Japanese GT licence, over 100 domestic models feature (including the new Toyota MR-S, shown left), although, of course, no foreign models are included. As well as racing, the championship mode has you seeking sponsorship in order to reach the top. Online gaming features are also promised.

PROJECT VANISHING POINT

FORMAT: **PS/PC** DEVELOPER: **CLOCKWORK GAMES**









Shown previously in video-only form on Acclaim's stand at ECTS, Clockwork Games' forthcoming racer caught **Edge**'s eye due to its use of licensed vehicles and seemingly realistic set of dynamics. Interestingly, civilian traffic also features, which leads **Edge** to hope *PVP* (working title) eventually emerges as the next 3DO *Need for Speed*. Visually the game certainly looks on track. PlayStation2/Dreamcast versions are also being considered.

QUAKE III: ARENA

FORMAT: **MAC/PC** DEVELOPER: **ID**







It's getting very close now, although whether id and Activision can get their monster out before Christmas remains a moot point. But before it hits retail, expect a proper demo to be released, including the three test levels already seen, a simple map for newies, and plenty of AI-controlled bots. The latest screens display a variety of the CPU opponents gamers will be fragging against, with the bipedal Orbb looking like a strong contender for the most grotesque.

KISS: PSYCHO CIRCUS

FORMAT: **PC** DEVELOPER: **THIRD LAW INTERACTIVE**



After falling out with John Romero, most of *Daikatana's* original development team, the so-called 'Ion Eight', joined up with Mike Wilson at Gathering of Developers. *Kiss: Psycho Circus* is the result. Based on the graphic novel franchise and using the Lithtech 2.0 engine, *KISS* has the makings of a disturbing if senseless FPS. If nothing else, it certainly has the most bizarre enemies – and there are plenty of them. One level is home to more than 100 spiders which attack *en masse*.















MARIO PARTY 2

FORMAT: **N64** DEVELOPER: **HUDSON SOFT**

This sequel to last year's highly entertaining multiplayer experience offers five new stages – and 14 of its 64 mini-games are also new. Other than a few more characters and other refinements such as the possibility of using shortcuts (at a cost of five gold coins, of course), and increasing your income by betting on events, it's very much business as usual. The 256Mbit cartridge should grace Japanese game shelves from December 17.









ZELDA GAIDEN

FORMAT: **N64** DEVELOPER: **NINTENDO**

Only the most devoted Nintendo follower would refuse to admit that the company's 64bit machine is in serious trouble. As such, titles like this *Zelda* pseudo-sequel (or even Rare's *Perfect Dark*), regardless of its quality, will do little to alter the machine's misfortune. Nevertheless, you'd be foolish not to look forward to another Miyamoto production.











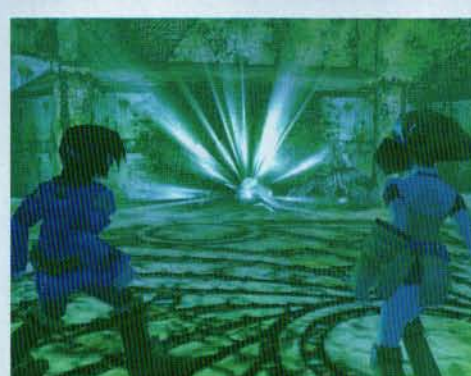
ETERNAL ARCADIA

FORMAT: **DC** DEVELOPER: **SEGA**

Divided into six main areas, each under the influence of a moon, *Eternal Arcadia* offers an RPG narrative inspired by Moby Dick. You move from one area to another on the Little Jack flying ship looking for Mobys, a gigantic creature responsible for the captain's loss of an arm and an eye years ago.











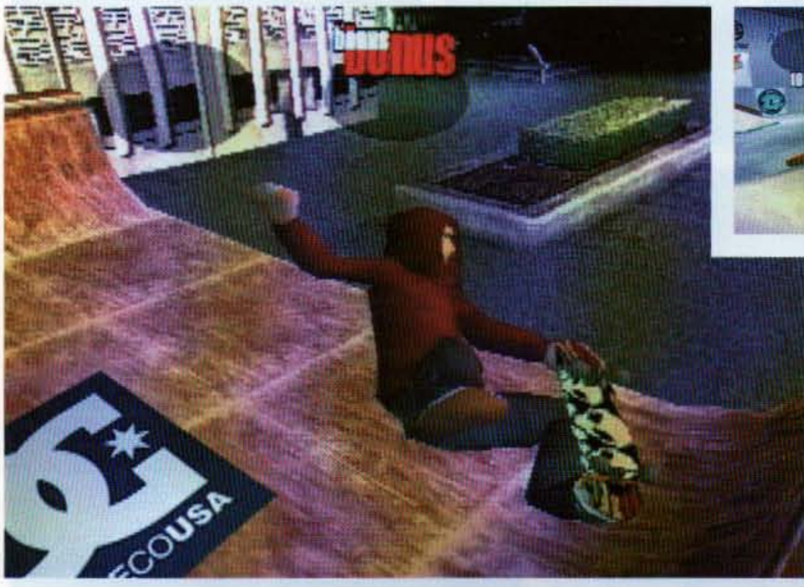
THRASHER: SKATE AND DESTROY

FORMAT: **PS** DEVELOPER: **ROCKSTAR GAMES**

While the developer's description of *Thrasher* as the *Gran Turismo* of skateboarding titles (whereas *Tony Hawk's* would be *Ridge Racer*) may be somewhat excessive, there's no denying this is a more technical approach than Neversoft's surprisingly accessible effort. It takes a while to get to grips with the controls, and it doesn't always look fantastic, but it should be interesting to see how the gameplay squares up after extended play.









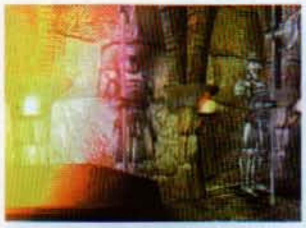
BEETLE BUGGY

Edge first saw this back in **E**51. Then known as *Rattle and Beetle*, Spanish developer Chaos Effect had come to ECTS looking for a publisher. The following ECTS, **Edge** met the Chaos director who was showing a suitably advanced version of his PC game and had also managed to get a big publisher very interested in it. A year on things have changed again. Expect more info as soon as the Infogrames PR machine warms up.

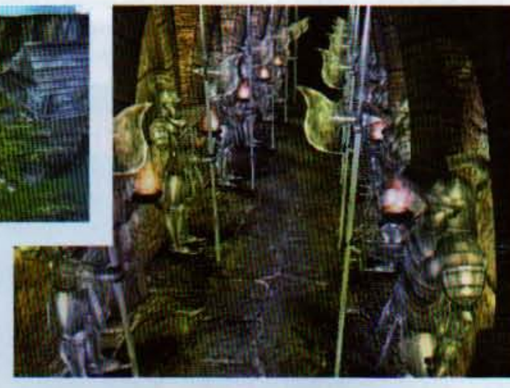


ETERNAL RING

FORMAT: **PS2** DEVELOPER: **FROM SOFTWARE**











Keen to take its *King's Field* saga to new levels, From Software is hoping that PS2 is the tool with which to achieve its vision. The world of *Eternal Ring* is divided into eight areas, each controlled by a dragon. Weather is calculated in realtime and in affecting your environment can reveal secret areas (an avalanche may make available a cave, for example).

SUPER 1 KARTING SIMULATION

Available for PC (with a subsequent PlayStation version next year), this Interactive Entertainment-developed game concentrates on authenticity, with 11 international tracks (and bonus GP circuit) and a series of karting classes to work your way through on your way to victory. At present the karts fail to demonstrate the twitchy behaviour of real karts, and the drivers appear remarkably relaxed, although this should be fixed by the time the game is out.





BIOHAZARD CODE: VERONICA

FORMAT: **DC** DEVELOPER: **ANGEL STUDIO**

Suffering another delay (Capcom quickly announced the December release of *Biohazard Value Plus*, a tarted-up DC version of *Biohazard 2*), *Code: Veronica* continues to look promising. More puzzle heavy than before, certain elements are more significant – using a lighter, for example, can now attract zombies.











MUNCH'S ODDYSEE

Oddworld Inhabitants is combining its beautifully innovative side-scrollers with the power of PS2. Yes, it's time to welcome Abe and parping chums into the glorious world of 3D







It's a world away from the 2D side-scrolling of Abe's adventures, but thanks to the power of PlayStation2, *Munch's Oddysee* should keep its predecessor's quirky character but with added accessibility



Format: **PS2/PC**
Publisher: **GT Interactive**
Developer: **Oddworld Inhabitants**
Release: **Autumn**
Origin: **US**

The latest *Oddworld* game represents a revolution that goes beyond the obvious jump from 2D to 3D. There's a switch from puzzle-oriented gameplay to the open-ended simulation of entire ecosystems – including the life cycles and social chemistry between the bizarre creatures that inhabit them. But that's a measure of freedom available when developing games for PlayStation2.

"We've allowed more onscreen characters, more elaborate behaviours and larger worlds with more AI running underneath," enthuses **Lorne Lanning**, Oddworld Inhabitants' president.

"In short PlayStation2 allows us to completely rethink how a game should be built, how it should look and how it should be played." And as anyone who has experienced *Abe's Oddysee* or *Exoddus* will know, that's quite a statement, as Oddworld games have never lacked innovation. Now as one of the first non-Japanese developers to release image of its DVD-based game, it's demonstrating ambition too.

Born out of a time when Lanning and CEO Sherry McKenna found themselves working on a movie ride for Universal Studios, only to decide that games were more interesting, Oddworld Inhabitants started out intending to release a quintet of game episodes within one universe.

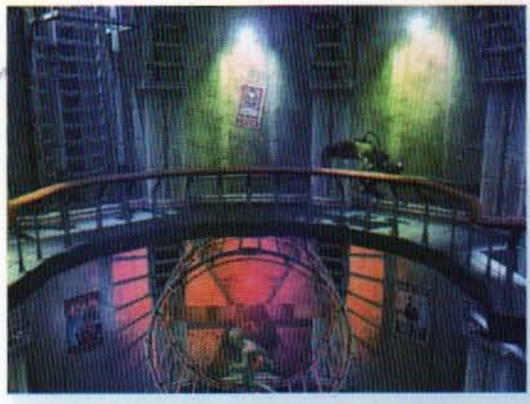
The first chapter was completed with the release of *Abe's Exoddus*. This was counted as a bonus game following the debut of *Abe's Oddysee*, rather than a release in its own right. Work on the second episode, *Munch's Oddysee*, started in late 1998. The ever-popular Abe is retained as one of the key characters. He rescues/kidnaps Munch, last surviving Gabbit, from a Glukkon medical research facility.

The Gabbits have almost been wiped out as





One of the key features of *Munch's Oddysee* will be its elaborate herd AI







Most of the favourite species of *Oddworld* will return in evolved 3D form although the key character is Munch, the last survivor of the Gabbits

Once again the baddies are the scientific and industrial races, such as the Glukkons and Vyykers. Munch has to be rescued from a medical lab

And using the accessibility that comes from a 3D environment, Oddworld Inhabitants is concentrating on expanding this core market.

A manageable camera is one key issue. Another is what Lanning berates as the 'virtual idiot' phenomenon of 3D characters – when the addition of a third dimension makes characters unable to pick up items or walk through doors without colliding with walls.

The world is heavily populated **with creatures from Abe's games reappearing in evolved 3D forms,** as well as a raft of new beasts

they have been used as spare transplant parts for Glukkons suffering from lung cancer.

Despite their dysfunctional relationship, Munch and Abe have complementary attributes, even though Munch starts the game hating Abe. They eventually learn to get along and both are important to completing the game. Abe can possess living beings, while Munch, thanks to a RS232 port in the back of his head, can possess mechanical objects. He is also an amphibian, but Abe can't swim.

The rest of their world is heavily populated, with creatures from Abe's games reappearing in evolved 3D forms, as well as a raft of new beasts.

"Some of the new enemies will be much larger in scale," reveals Lanning. "Some will have strange co-dependent relationships and some will be aquatic. You'll also start seeing more herds."

Important in the success of previous games was the enthusiasm with which female gamers picked up on Abe's non-confrontational missions.

"We are working on a system that helps the game's inhabitants identify where they are in the environment and also recognises what items of interest might be nearby," Lanning explains.

"Picking up an item should be as fluid as it used to be in 2D." The goal is to combine these tools with an environment that allows players to do what they want, for as long as they wish.

"We expect that once people start playing, they will find themselves getting interested in going off on their own and just treating the world like it's a terrarium full of living creatures," he says.

"People will want to nurture some things or levels for a long time, possibly days or weeks." The core plot will take about 50 hours to complete. And around nine months after the release of *Munch's Oddysee,* Oddworld Inhabitants will release its first online multiplayer version of the series, archly entitled *Hand of Odd.* Thanks to Sony, Oddworld finally has the chance to go global.







Beautiful scenery, consistent ecosystems and deep immersion are promised in the 3D version of *Oddworld*

DAIKATANA

The pitch was '*Quake* with a storyline and two AI-controlled sidekicks'. Three years on, the resulting game is finally approaching completion. No, really, it is...





One of the key design features is the inclusion of two AI-controlled sidekicks, Superfly and Mikiko. The trio attack a fearsome *Quake*-style bot (above)

***Daikatana*'s third level is set in a Norwegian, plague-infested village. Weapons are medieval while enemies are based on Norse mythology**

Format: **PC/N64**
(PC version shown)

Publisher: **Eidos/Kemco**

Developer: **Ion Storm/ In-house**

Release: **December**

Few were surprised when John Romero led a breakaway team from the world-leading PC developer, id. But that decision was more than just a collision of personalities; the taciturn John Carmack verses the rockstar ego Romero.

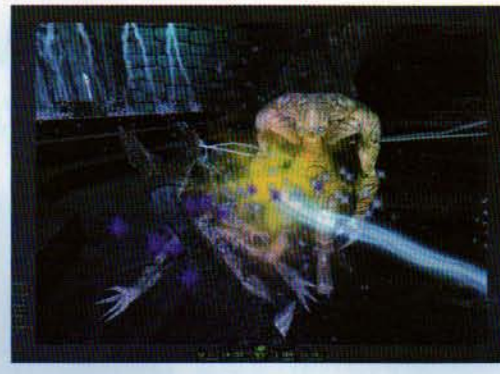
Post *Quake*, Carmack's vision was to build a technology base to power the purest multiplayer experiences ever. But Romero wanted freedom to write genre-busting games with ambitious singleplayer stories. And so he left. And thanks to backing from Eidos, Ion Storm was born.

By the time it ships, *Daikatana* will have been in development for more than three years. Meantime, the bulk of its original team has left to form their own studios and the game engine has been upgraded from *Quake* to *Quake II*.

These were time-consuming obstacles to the game's completion. Lengthy development doesn't preclude success, though, as Valve and Epic discovered with *Half-Life* and *Unreal*, respectively. For what is often forgotten is that *Daikatana* has always been an incredibly ambitious title. More



One level involves Hiro infiltrating a high-security prison full of mean-looking convicts. Fortunately, he has an arsenal of grenade launchers and miniguns





Each level has its own atmosphere, enemies and weapons. The double-headed, poison-spitting snake staff (above) is from ancient Greece







It's no surprise that *Daikatana*'s heritage and age have become evident due to its troubled development

than merely a FPS, Romero is attempting to meld RPG elements into the genre, to create a game that's as dependent on strong characters as it is quick shooting and cool network code.

One addition is the five character stats: power, attack, speed, acro (accuracy) and vitality. As characters gain experience points in RPGs, killing enemies will provide points which can be distributed to improve whichever attributes best suit gamers' playing styles. More crucial are the two computer-controlled sidekicks, Superfly and Mikiko, who help the main character, Hiro Miyamoto. They can be commanded with instructions such as 'stay,' 'come' and 'attack.'

Ammo and health can also be swapped between characters who even ask what they should do. And more than being a neat idea devoid of gameplay possibilities, they are vital, especially to unlock areas.

The hardcore player can even go through the game as one of the sidekicks. But in a move sure to annoy, Superfly and Mikiko must be kept alive. They will hide from enemy fire when they are low on health and avoid falling damage – but if one dies it's game over for the entire group. This, rather than the dated look of the game, could turn out to be the biggest weakness.

In the most recent build **Edge** played, the sidekicks' AI seemed to be in need of an overhaul. They were far too keen on standing in front of any weapon Hiro was about to wield – not the best position in a firstperson game that features friendly fire. Instead, the best advertisement seems likely to be the online mode allowing three people to play cooperatively.

Daikatana's other main departure is its four-games-in-one design. Each episode is completely different in appearance, armoury and enemies. Starting in 25th century Japan, the action moves to ancient Greece where players fight mythical beasts like griffins and the Medusa, using weapons such as the Eye of Zeus. Meanwhile, in Dark Ages Norway, it's crossbows, skeletons and dwarves. *Quake*-style weapons and mechanoid opponents are saved until the final futuristic level. At the crux of this fantastical story is the mystical Daikatana sword which allows Hiro and his companions to time travel – something Ion Storm remains uncharacteristically coy about. It hasn't even released ingame footage of the blade yet.

But for all Romero's protests that *Daikatana* is designed to be a single player experience, its reputation may well depend on the reaction of the online community.

The game will look familiar enough to gain supporters. There is certainly plenty of variation in weaponry. And, as is *de rigueur*, it will ship with IonRadiant, its modified *Quake* level editor.

A nightmare scenario remains: Kemco's port of the game could ship into America's voracious N64 market selling millions, while Ion Storm's PC version stalls on its ambition and the imminent release of *Quake III: Arena*.





Each time period has around 20 enemy types, ranging from bats, to sharks, bots, attack helicopters, griffins and skeletons

THE WHEEL OF TIME

Take the characters from a fantasy universe, add a high-powered engine and develop for two years. The result could be a magical firstperson box of tricks









***The Wheel of Time* is as much about choosing which spell to use as wiping out the enemy. Magic is indicated across the bottom on the playing screen**

If there's one key issue forced on to developers by the commercial pressure of the games industry, it's licensing. And following its acquisition by GT earlier this year, the latest title from Bob Bates' long-running Legend studio is licensed up to the max.

Based on the characters and world of the Wheel of Time fantasy series, created by US author Robert Jordan, Legend's game is powered by the Unreal engine.

Despite rumours early in its development that gameplay would be angled towards an RPG style, its engine heritage has won through. *The Wheel of Time* has ended up in the mode of *Hexen* – a firstperson shooter with magical items and spells taking the place of the usual array of flak cannons and rocket launchers.

Instead, players have the tactical choice of tackling enemies with either projectile spells such as fireballs and decay or using passive options – reflecting damage and creating minions to fight for you. There are ten types of spell, and three to six variants in each.

You can even defend an area by herding enemies into killing zones using false walls and then hitting them with spear traps and trapdoors. It's an intriguing proposition, particularly as the plot of the singleplayer option places the player on the defensive. Some missions involve protecting your tower (you play Elayna, the head of a female order of sorceresses) against hordes of marauding monsters, while trying to regain a stolen seal.

The game also betrays something of its roots with the level design, which is of the highest quality. Sketches produced from locations described in Jordan's books were made into models by an architect. The ruined cities and decimated interiors are as good as any levels in *Unreal Tournament*.

But unlike the triumphalism inherent in most FPS, the atmosphere here is tinged with a certain melancholia. And according to the game's designer, Glen Dahlgren, the experience of playing should be more thoughtful – closer to Magic: The Gathering (the card game) than to a *Quake* fragfest.



The trick to staying live is the careful mixing of offensive and defensive spells







Set in Robert Jordan's fantasy world, *The Wheel of Time* focuses on plot despite its FPS perspective

Format: **PC**

Publisher: **GT Interactive**

Developer: **Legend**

Release: **December**

Origin: **US**

MEDAL OF HONOR

Steven Spielberg turns the war-weary knowledge gained from 'Saving Private Ryan' into an authentic *GoldenEye*-inspired WWII shooter





One of the best-looking console shooters, *Medal of Honor* pushes Sony's hardware. The character animation system (above) is particularly impressive



One of the few titles to use both Dual Shock joysticks, the game has smooth controls, especially using the shoulder buttons for strafing



It's not all combat. The most tense missions all occur undercover

Format: **PlayStation**
Publisher: **EA**
Developer: **DreamWorks**
Release: **January**
Origin: **US**

The concept behind *Medal of Honor* is so obvious that the game should be subtitled What Steven Did Next. After finishing 'Saving Private Ryan', Spielberg and his consultant Captain Dale Dye started to flesh out the background story for a game based in that WWII environment. Spielberg was so hands-on that he even chose the title.

The game revolves around Jimmy Patterson, an Office of Strategic Services agent, working behind German lines prior to the D-Day landings. There are 24 levels in total, and each builds linearly on the last, with the goals becoming increasingly crucial to the overall success of D-Day.

As recently seen taken to extremes in *Hidden And Dangerous*, everything from the weapons and uniforms to the types of mission are modelled as realistically as possible for a PlayStation game.

Apart from Spielberg's film, the other heavy influence on the game is *GoldenEye*. DreamWorks' development team seems to have studied Rare's masterpiece carefully and concentrated its efforts in key areas such as AI and a hierarchical animation system. As in *GoldenEye*, character models experience locational damage, limping when shot in the leg, for example. This also has the advantage of rewarding accurate shooting, with a single shot to the head causing instant death.

More similarities between the games include levels in which suspicious guards can set off alarms, triggering all troops into alert. Enemy AI is fearsome, too, with squad-based intelligence working well. On occasion, soldiers will even kick your grenades back at you.

Another neat touch is that some missions involve Patterson going undercover wearing a German uniform. To gain access to better-guarded areas you must find and take out high-ranking officers with a silenced pistol, in order to steal their passes.

While *GoldenEye* remains the finest firstperson shooter ever to grace a console, recent alpha code suggests *Medal of Honor* is likely to gain the PlayStation subdivision of that accolade.





In common with every quality FPS, *Medal of Honor* offers a sniper rifle for distance kills, and a multiplayer split-screen option for the obligatory deathmatch

SPIDER-MAN

Take one of the most popular superhero characters, grab *Tony Hawk's Skateboarding*'s engine, and stand back as your foolproof concept shapes up – it's easy when you know how...











In addition to his super fighting skills, *Spider-Man* can put his web-spinning technique to a variety of uses such as flicking switches from a distance, as well as more obvious aggressive applications

First seen at this year's E3 show, Neversoft's take on the *Spider-Man* franchise is looking increasingly as though it may be the first digital outing for Marvel Comics' superhero to actually do him justice.

Using the *Tony Hawk's Skateboarding* graphics engine, the developer has spent the last few months battling with the intricacies of having a character that can go virtually anywhere within a given environment. It has now reached the point where it can concentrate solely on the actual level and game design.

Although Neversoft is keeping quiet about gameplay specifics, **Edge** understands that you can expect all of *Spider-Man*'s main comic-book adversaries – old and new – to make an appearance at some point. There are also references to other superheroes – as you swing between New York's soaring structures you may come across the Fantastic Four building.

Neversoft has intimated that Spidey will communicate with fellow crime fighters at various points, although this is likely to happen only during cut scenes, which sadly kills any potential for the kind of alliances which the webhead has struck up on his myriad escapades.

After poring over endless comic-book art and footage of the various animated TV series, Neversoft gave up fooling around with motion capture and resorted to hand animation as a way of depicting *Spider-Man*'s particular movements. There are some impressive results – polygonal Spidey moves and hence looks surprisingly like the 'real' thing. The one thing he can't do, due to a condition imposed by Marvel, is kill any of his opponents. (Feel free, though, to tie them up in a ball of web, violently reel them towards you and knock them unconscious, or just bounce them off a selection of geographical features for a bit.)

Spidey's ability to tackle landscape from any angle presented Neversoft with a problem when it came to engineering a workable camera. The developer eventually decided on a system whereby obstructing become semi-transparent. When crawling on a ceiling, therefore, the camera can still look down into the room without being hampered by polygonal roofing tiles.

With another seven months to go, Neversoft appears on track to turn out a production that may even surpass the quality of the great *Tony Hawk's Skateboarding*. Comic-book fans will attest that it's not before time.





Neversoft is ensuring the most important elements from *Spider-Man*'s universe make the game. Spider sense, for instance, is taken care of via Dual Shock vibration

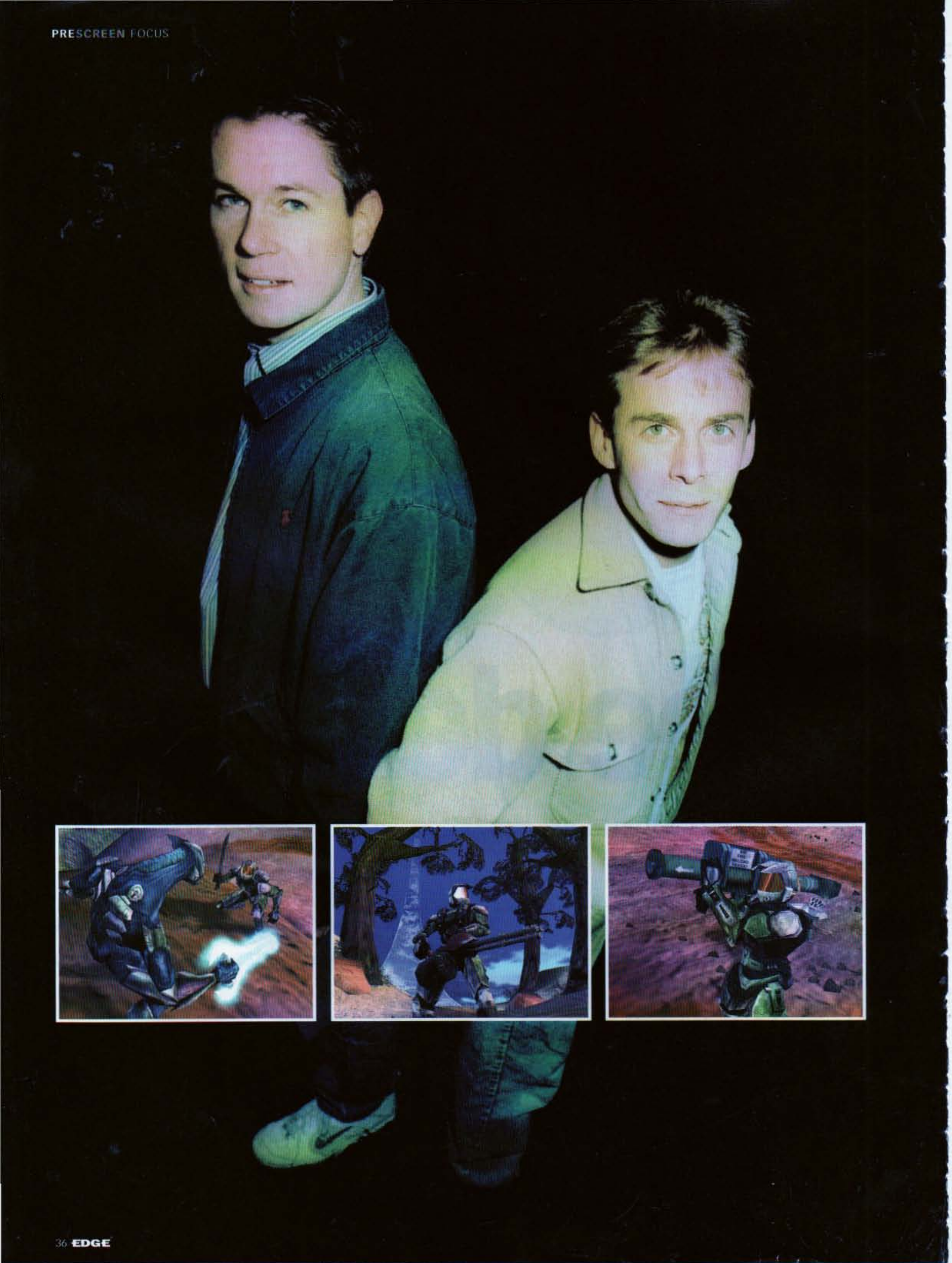
Format: **PlayStation**

Publisher: **Activision**

Developer: **Neversoft**

Release: **June**

Origin: **US**



Bungie

Bungie Software has always oozed ambition. And, with its latest games, *Halo* and *Oni*, and PlayStation2 in its sight, it's got the ammunition to back up its mettle

There is a vicious spiral at the heart of computer gaming. Technology drives software, which should allow better games to be made, while hardware vendors rely on hit games to sell their boards and boxes.

It's a chicken and egg scenario – which comes first? Success seems to be a matter of luck and timing. It's a situation Bungie must understand well.

The company started out coding the *Marathon* series of games purely for the Mac, before expanding into writing games for the PC as well, for its moderately successful *Myth* series. Now just ahead of the rush towards next-generation consoles and fearsomely powerful PC graphics chips, the signs are good for Bungie.

It's preparing its latest games, *Oni* and *Halo*, for a mass market and has already signed a letter of intent with Sony to publish games on PlayStation2. And *Halo* was used by Nvidia to demonstrate its new GeForce chip. But Bungie is certainly not complacent.

"The core of my belief is we have to provide people with fresh experiences that they can't get anywhere else," explains **Peter Tamte**, Bungie's newly appointed executive vice president of publishing. "If we're not, there's no reason for us to exist. In fact, no matter whether there's a reason for us to exist, if we don't provide those experiences we won't exist."

As a medium-sized company, the bottom line is: Bungie just can't afford to ship a dud game. The brief for *Oni* and *Halo* called for them to be as innovative as possible, while appealing to the largest number of people. They have been created out of the collision of emerging technology, novel gameplay features and financial acumen. This explains why, despite being different in many respects, there are key similarities in how the separate development teams have implemented the games.

Being there

Crucially, considering Bungie is trying to close the gap between the player and the onscreen character, both games use a thirdperson view.

Bungie can't afford to ship a dud game. The brief for *Oni* and *Halo* called for the company to be as innovative as possible, while appealing to the largest number of people

"One reason why we have chosen thirdperson is the way it draws you into your character," says **Joe Staten**, Bungie's product manager.

"We want you to see your character in these worlds and then we want you to







Bungie boys (opposite page): Peter Tamte, executive vice president of publishing, and product manager Joe Staten. Bungie's current projects include *Halo* (far left) set on a freeform ring-shaped planet, and *Oni* (above), which is based in 2032 and follows the story of Konoko, an officer in an elite police unit





Seamless interpolation between different combat animations is the key to *Oni*'s playability. The use of guns will be strictly limited by lack of ammo







To make the intricate levels for *Oni*, Bungie uses *AutoCAD* as its level editor. But while it's good for the game, it will limit the number of fan levels created

feel that you're actually this character." Similar thinking underpinned the decision to limit game controls to the standard *Quake* set up – four basic movement keys on the keyboard and the two mouse buttons for action.

For *Oni* this is a brave decision as its full-contact combat system includes a comprehensive set of beat 'em up moves. To deal with this, the two mouse buttons are used to trigger basic punches and kicks, while more complex actions such as throws and disarming actions are controlled by a character's proximity to an enemy and moderated by the direction of their movement.

But in *Halo*, combat is purely weapon and vehicle based, so the controls are used for moving, driving, flying and sailing the various craft.

The plot thickens

Other key areas that Bungie is focusing on are plot and characters. "It's okay to play a twitch game to get an adrenaline boost but there's an opportunity now to create culturally significant games," argues Tamte. "Entertainment is becoming more interactive and we've got to provide people with a much deeper experience, and that's going to come partly through plot."

With *Oni*, you are Konoko, a female agent of the Tech Crimes Task Force, trapped within a *Final Fantasy*-style environment with loss of identity and betrayal. The game is as much about finding out who you are as dragon-punching hordes of ninjas. *Halo*'s story, on the other hand, is more generic. You play an elite cyborg unit fighting with humans against an alien invasion taking place on a distant planet.

But far from giving in to stereotypes, Bungie has tried to bring new elements to bear. One simple problem is that, in *Halo*, all the human soldiers wear visors so there is little visual awareness of who people are or what they're feeling. Tamte agrees: "The traditional way of showing fear is by looking at a character's face – but we've found some interesting ways to show fear and some of the other emotions without actually having to show the face."

Both games use advanced inverse kinematic physics systems to create smooth character animation. This has proved to be crucial for *Oni*'s full-contact action moves where static punches must turn fluidly into flying kicks before the initial animation has been completed.

Gesture is an important facet of *Halo* too, with the orientation and position of characters immediately showing whether they are expecting an enemy assault from a specific direction. *Halo*'s characters can perform more than one animation at once, with the inverse kinematic system layering the separate movements to create one seamless action.

One bizarre example demonstrated to **Edge** is the ability of a character to fire a rifle with one hand while enthusiastically





Much of the excitement around *Halo* results from the wide, open spaces which make up the majority of the basic environments



waving his arms above his head and then pulling a backflip. It's unlikely to be a useful combat move, ever, but if nothing else it shows that *Halo*'s characters can portray humour.

From PC to PS2

One of the most striking reactions following Sony's announcement of PlayStation2 has been the wholesale rush of PC developers towards this next generation console.

Bungie is no different. It's never made a game for a console but it's suddenly keen to start trying.

Nothing has been officially announced yet, but the smart money is that a version of *Halo* will be developed for PlayStation2, while there's a possibility of *Oni* moving to Dreamcast.

Tamte appreciates this situation, although refuses to confirm **Edge**'s speculation. "I recognise the challenges of going from the PC into the console market," he says.

"There are interface and controller issues which are different and entire gameplay issues which are very different.

"When we go into the next-generation console market our strategy will be to take the brands that we've built, the characters in the game and the personality of the game, but to have separate development teams working on the projects." *Halo* and *Oni* teams practise dual development on PC and Mac versions of their games.

Understandably, portability of code is something Bungie is keen on. It is considering novel ways of using its engine technology as well. "There are a lot of people talking to us about licensing the *Halo* engine, and our answer is that we are not interested," says Tamte.

"What we are interested in is if someone brings in some unique game concept that uses the *Halo* technology then we'll go for it."

This decision is partly to stop a glut of similar-looking games, based on the engine, flooding the market – which might damage the reputation of the original game.

Bungie wants to increase the amount of titles it publishes, from one every other year to two or three each year. And with only three in-house development teams it knows the opportunity to use excellent engine technology is the best way to attract good thirdparty developers.

The problem, however, will be conceiving a game more innovative than the concept Bungie has already come up with. Prospective game designers: you have been warned.





Although *Halo* (left) and *Oni* (right) offer different styles of gameplay, they are being developed in Bungie's characteristic way with playability the key issue

ONI

Format: **PC/Mac** Publisher: **Bungie** Developer: **In-house** Release: **Spring** Origin: **US**

Set in 2032, *Oni* revolves around Konoko, a member of an elite police unit, trying to reduce a large crime syndicate.

Meaning ghost or demon in Japanese, *Oni*'s storyline promises to be complex. As Konoko's tangled history is revealed she becomes increasingly violent. And the more violent she gets, the more powerful fighting moves will be unlocked in the game.

Cooperative characters also appear. In the beginning, Konoko will team up with police units, although as alliances shift other characters will join her. She also has a dedicated robotic sidekick called Shinatama which helps her throughout the game.

But the key gameplay feature is the attempt to make an anime-style game that integrates use of unarmed combat and guns. Bungie wants to give players the chance to jump unarmed into a room populated by a couple of guards, disarming and breaking the neck of the first in a smooth motion. Then, before the other guard can react, pick up the fallen gun and shoot him. It's a tall order. And not only because of the sophistication of the animation system required – equally important will be convincing gamers not to use firepower when the option is available.

Bungie's solution takes something of a carrot-and-stick approach. There will never be enough ammo to survive without using your fists and feet. Stealth will be important. As in *Metal Gear Solid*, in some missions you won't be able to use a gun. The smoothness of the animations should prove to be visual reward itself.

"We never want you to be able to go into a room and mow down everyone with a weapon," explains Staten. "What we want is for you to walk into a room containing a couple of ninjas, a couple of big elite units, and you'll have to make a decision as a player: 'I've only got this much ammunition, so who do I chose to take out?'

"We want to set up situations where the gun is effective but it only allows you to cause damage and then you have to go hand-to-hand to finish the fight."

The only downside to *Oni* concerns its level editor. It has become standard for Bungie games to ship with level editors so fans can create their own environments, but this won't be possible.

Early in development it was decided that, to create the incredible-looking levels, the professional drafting programme *AutoCAD* would be used – and obviously it would be impossible to release a $4,000 program with a $40 piece of game software.

Bungie hopes to release its importer tool and scripting editor, though, should any prospective level editors have access to the program.



Futuristic urban levels and an engaging plot acts as the backdrop to *Oni*'s full-contact combat

HALO

Format: **PC/Mac** Publisher: **Bungie** Developer: **In-house** Release: **Autumn** Origin: **US**

First announced during Steve Jobs' keynote address at MacWorld '99, *Halo* is one of the most impressive games currently in development anywhere.

It includes many hot pieces of technology: deformable meshes, level of detail engine, inverse kinematics models, realtime shadows, multipass texturing, full physics models for all characters and vehicles, cubic environment mapping and a weather system that even models windspeed.

The basic concept behind *Halo* is sheer genius. The game is set on a ring-shaped planet, 100,000 miles in diameter. Looking towards the horizon you can see the curve of the world rising into the sky. And if you turn 180 degrees you'll see the curve coming back down again.

This has allowed Bungie to create a persistent singleplayer universe. There are no levels, only a planet where players will gradually gain access as they acquire and capture different vehicles.

"At Bungie we hate a lot of things but one thing we hate more than anything else is levels that are rollercoasters," stresses Staten. "You get on at the beginning and you get off at the end. There will be multiple ways to reach your objectives. You will never be stuck on one track."

This opens up a wealth of possibilities for players. Although in *Halo* your overall mission is to destroy the aliens on the planet, subgoals are treated far more flexibly.

"Objectives will be your choice," says Staten. "But if you don't go and attack that alien base now, if you leave it until later, it will have become much stronger. The *Halo* world will continue without you."

The possibilities for the singleplayer game are good, but scope for the online version should be vast. Bungie has yet to confirm the exact setup, but it's not thought that *Halo* will initially operate as a persistent online world like *Ultima Online*. It seems to be a certainty in the future, though.

Instead, much of the focus will be to encourage cooperative play. Via its Bungie.net service, Bungie will ensure teams can join up for missions. One of the best examples is the three-man jeep. "Some people are going to get really good at driving, or firing the .50 machine gun on the back. Some will be good at firing rocket launchers," says Tamte. Staten agrees: "It's hard to make people cooperate online when you can't see each other so we want to provide good rewards for doing so. If you cooperate you get to kick more ass.

"There will be missions where if you're in a jeep attacking an enemy base you'll get wiped out. But if you fill up your jeep with people and get another jeep to come along too, you'll destroy that base."

In another nice touch, bodies, guns and even bulletholes will remain as persistent objects and have gameplay significance. For example, the disappearance of the dead bodies of your foes could alert you to the presence of a large indigenous predator. You will want to pick up the guns of your dead colleagues and attempt to capture enemy weapons. Your weapons are much better at killing humans than alien weapons and vice versa.

Bungie isn't giving away all *Halo's* secrets, though. When asked what happened at the edge of the world, Staten was cryptic: "There are things that exist there that make sense and make it easier to get around the ring."





In *Halo*, players will be able use a wide range of weapons and vehicles, from alien flying craft (above) to jeeps and large battle tanks (right)

Scope for the online version should be vast. The focus will be to encourage cooperative play. Via its Bungie.net service, Bungie will ensure teams can join up for missions





***Halo*'s engine switches seamlessly behind indoor and outdoor environments. The game will also involve underwater elements as well as low-level flying, if the alien technology can be captured**



CONSOLE WAR II

Edge delivers an insight into the efforts of Sony and its three rivals as they prepare to lock horns for your cash, and offers a prediction of how the gaming landscape will pan out once the shells stop flying

There have been console wars before, of course (strictly speaking, a more accurate title for this feature would be Console War V). But never on this scale.

Now that Sony has undertaken the groundwork – and that's all it is, because videogaming remains a niche interest in the grand scheme of things – the wide-scale acceptance of videogaming as a form of entertainment as common as the TV and VCR in the home is but a console launch away.

However, this super-mass market does not want to have to make a decision between varying technologies. While hobbyist gamers are happy to purchase two or more systems, the super-mass market needs standardisation.

When VCR technology finally became affordable to the masses, it soon became clear that Betamax would not survive for long against VHS. The two technologies did not co-exist in the same way the N64 has alongside the PlayStation. Sony's Betamax had to go.

That is why this particular round in the war to dominate the living room will be especially bloody. It's also why Microsoft is entering the fray. Despite having not officially announced the existence of a console at the time of press, Bill Gates' crew know that a revolution is about to take place in the home, and that it's not going to happen via PCs, irrespective of how many attractively coloured boxes they're wrapped up in. No, the future is a box that sits alongside the family television. Which box? That's what this feature seeks to identify. It's still early days, but as you'll see over the next nine pages, it's already possible to identify the most promising pedigree in this four-horse race.

Welcome to the revolution

After years of false starts, the set-top box revolution is almost ready to take hold. Philips and 3DO attempted and failed to bring the dream alive, but as well as failing to attract large-scale software support, both companies were attempting to invent a market in conditions that would not support it.

As society prepares to welcome the new millennium, however, it is waking up to connectivity, and the value of this component – an out-of-the-box consideration, in one form or another, to most manufacturers preparing to launch a new console – will eventually pan out and it will begin to change lives.

According to IDC Research, the number of game consoles that will have shipped worldwide with Internet support will be 15m by the year 2002.

As the first console to offer connectivity as standard, Dreamcast may make up a fairly significant number of those 15m, and it's already a secure vehicle for ecommerce. According to **Ken Soohoo**, VP of product development at PlanetWeb, the developer of Dreamcast's Web browser, Dreamcast's 200MHz Hitachi processor is quite capable of handling the cryptography required for secure Internet ecommerce. "From an online security standpoint, someone accessing the Net from a Dreamcast looks exactly like someone accessing the Net from a PC," says Soohoo.

"Nintendo probably views it slightly different than a Sony or Sega would, in that we're a very traditional, pretty focused gaming company. The main thrust of our machine is going to be as a dedicated gaming console."

Microsoft isn't taking any chances in the face of the potential from Nintendo, Sony and Sega to offer services traditionally bound to PC, especially if consoles make them comfortably usable in the living room. If there's going to be a machine providing ancillary PC features and PC entertainment in the living room, Bill Gates wants it to be X-Box.

The big prize

Though videogaming will be the activity around which the next wave of consoles will be sold, every major player is strategically planning for the same trillion-dollar prize – massmarket dominance in the next millennium and ultimate control of the living room. This means eventually building out ecommerce portals, and providing promotional opportunities that target the traditional console demographic. The new systems will certainly open up ways for the hardware manufacturers to bring in non-traditional forms of revenue. And each company has a markedly different strategy for success, as will become clear over the following pages.

> "**Browsers and things** are relatively simple to implement on these **next-generation machines**, but for Nintendo, we want to focus on what augments our core expertise, **which is gaming**"
>
> *Jim Merrick, NOA*

And Sony's already planning for PlayStation2 technology to be incorporated into high-end post-PC graphics workstations being designed for high-end image-processing, for games as well as film and broadcasting.

But don't expect to see the next round of consoles to be marketed as anything other than gaming machines, at least at the outset. Rather, new consoles will gradually expand into multimedia territory.

Nintendo's stance is typical. While Dolphin will certainly house technology capable of providing more than gaming, saying otherwise would directly contradict the company's mantra. Nintendo of America engineer **Jim Merrick** toes the company line. "Browsers and things are relatively simple to implement on these next-generation machines," he says. "They are all capable of it. But for Nintendo, we really want to focus on what augments and enhances our core expertise, which is gaming."

But if its competitors are offering games and more benefits online, or DVD movie compatibility, shouldn't Nintendo be considering expanding Dolphin's potential for online access?

"The simple answer is no," says Merrick.

Winner takes all

On the face of it, the key to winning this new console war is simple: delivering the widest variety of strong games at a super-accessible price will build the foundation of consumers upon which successful networks and broadband support can be built.

This means that now more than ever each console manufacturer needs to deliver an astonishing lineup and a killer game network to convince people like the readers of this magazine – the early adopters and influencers – that its system is the one you can't live without.

PLAYSTATION2

Never in the field of hardware-manufacturer conflict has so much been expected of one piece of hardware. Can Sony truly conquer all?

As the original PlayStation readies itself for relegation to discount bins, lofts, and younger siblings' bedrooms, the new model is almost ready for action.

The replacement machine may play original PlayStation titles, but this is a mere footnote in Sony's overall scheme, which includes delivering the most powerful gameplaying machine ever conceived, capable of playing DVD movies just as the format is on the verge of exploding. Standalone DVD players currently sell for around £350, and while this pricepoint will have dropped a year from now, the existence of this compatibility alone gives PlayStation2 enormous launch appeal.

As industry luminary **Trip Hawkins recently said,** "technology is becoming passé; **story and emotion will be the most important determiner** of success in the **next generation"**

Playing it broad

Beyond 2000, Sony has embraced broadband technology. Although Sony believes that a thirdparty partner may deliver a modem and HTML browser, the company plans to forego a narrowband HTML browser and packed-in modem, and instead plans to introduce an external hard drive and broadband modem package in 2001 that will include the technology required to download videos, music, and games.

Why broadband? Sony is dedicating its resources to bring forth a network capable of driving new interactive experiences that go far beyond traditional games as they are perceived today. **Ken Kutaragi** describes this new medium as "computer entertainment." Sony is pushing videogaming further into the realm it has touched upon with PlayStation. Software design is now advanced enough to bring personality to characters, and a real narrative to gameplay. This is the Emotion Engine's destiny, says Kutaragi: to bring emotive qualities to videogames. As industry luminary **Trip Hawkins** recently said, "technology is becoming passé; story and emotion will be the most important determiner of success in the next generation."

He may be right. Sony says this is what's going to drive gameplay into the next decade: marrying a quality gameplay experience – be it *Tekken* or *Tomb Raider* – to the epic, cinematic storytelling experiences seen in 'Saving Private Ryan' or even read in *Moby Dick*. The best examples should deliver something inconceivable today.

Power

When the first million units are released on March 4 in Japan, PlayStation2 will instantly raise the bar in console technology. The system can process 16m polygons per second with all effects turned on, plus curved-surface rendering to boot, which dwarfs Dreamcast's 3m/sec. But Sony's new hardware will not be as accessible from a programming perspective as the original PlayStation was. The learning curve will be steep, and many developers will require the use of middleware which will limit coders from tapping the system's true potential. Subsequently, the first generation of PlayStation2 software may be comparable to Dreamcast games, but Sony's format will inevitably outpace Sega's. The real question is, how long will it take?

Software library

While even the first wave of PlayStation2 titles are still some months away, a handful of impressive titles were on display at autumn's Tokyo Game Show. Sony has claimed that more than 85 titles will reach Japanese gamers next year, but the real question is, how many will make the March 4 Japan launch, and how many of those will make it to the west next autumn? (Certainly, titles such as Taito's *Let's Go By Train!*, as graphically swish as it is, will not find a welcome audience here.)

However, in that bag of 85 titles, there are certainly some gems. *Tekken Tag Tournament*, *New Ridge Racer*, *Gran Turismo 2000*, and Square's impressive free-roaming brawler, *The Bouncer*, are just four titles that will redefine videogaming in their own way. But it's worth noting that these games, when stripped down to their bare bones, could be PlayStation1 titles. Gamers will have to remain patient to see the kind of depth that Sony is selling its new format on back of.

Tech specs

CPU	128bit 'Emotion Engine' @ 294.912 MHz
GPU	'Graphics Synthesizer' @ 147.456 MHz
RAM	4Mb VRAM embedded on chip
DRAM	32Mb direct
Drive	DVD-ROM (4x), CD-ROM (24x) DVD-movie compatible
Audio	Sound chip, 48 hardware channels, 2Mb audio RAM



Incoming software

Considering the strong support the system has already garnered in Japan, it is not surprising to see that western publishers and developers are also clamouring to get onboard. One telltale sign is Electronic Arts' immediate endorsement of the format. The world's largest thirdparty publisher is set to have several titles ready for PlayStation2's launch outside of Japan. Industry insiders have revealed that the company is working at full tilt in preparing its current franchises for the leap to PlayStation2. Perhaps wary of the catch-up game the company played with the original PlayStation, Electronic Arts is skipping Dreamcast in its entirety to focus its resources on one killer system. With a company as large as EA, changing strategies partway through production schedules simply isn't an option.

Marketing muscle

If Sony did anything especially well, it was marketing, succeeding with PlayStation in reaching a consumer base far wider than Sega or Nintendo had ever enjoyed. Sony's corporate branding remains strong (at the time of going to press, its 'mental wealth' campaign is as visible as it ever was). In some respects Sony does not need to try too hard with PS2 because the system does a fine job in promoting itself (you had only to witness coverage from the Tokyo Game Show in the national press to understand this), but you can be sure that it will spend hand over first to retain – and grow – its market share.

Prospects?

It is nigh impossible to deny this as the massmarket platform of choice in waiting.



Forthcoming PS2 software includes highlights such as *New Ridge Racer* (top left) and *The Bouncer* (top right), but these titles do not look set to make any big gameplay strides – something Sony must address if its console is to meet the lofty expectations of hardcore gamers. Meanwhile, first-generation PS2 titles such as *Street Fighter EX3* (centre left) and T&E Soft's inevitable golf game (centre right), hardly appear to push the platform. *Eternal Ring* (above left) is From's inevitable early RPG, while *Let's Go By Train!* (above right) will be huge in Japan

DREAMCAST

Already out on the streets and fighting for consumers' cash, is Sega's success story prepared to battle on into 2000 and beyond?

Climbing out of the hole Sega dug itself with its 32bit Saturn hasn't been easy. But now, a couple of months after the launch of Dreamcast in the west, it seems the company has done so with resilience – but not without some birthing pains. Many of the US executives responsible for the successful launch of Dreamcast, notably former US president Bernie Stolar, former VP of thirdparty Gretchen Eichenger, and former VP of product development Eric Hammond, are no longer with the company.

It remains to be seen **whether Dreamcast's modular design, whereby it 'grows'** in parallel to the user's needs, **will be a boon or a millstone.** History would dictate the latter

With 19 US titles in place, the system launched to a startling $134m in sales in its first four days. A month later, the system moved into the holiday season with more than a half-million units sold, and talk of hardware shortages possible in December. In the UK, meanwhile, the company's progress has been similarly impressive (see News).

The company's plan to have 1.5m units installed in the US by March 2000 may now be conservative. In Europe, 1m will ship into retail by early next year, and even though Sega failed to sell the 100,000 UK units it claimed it would within a week of making the unit available (falling short by a few thousand), its performance has been sterling.

Shuffling and expanding

But Sega continues to shake things up on the corporate side. Sega of America will become Sega of America Dreamcast, and a new company in Japan, International Investment Corporation (IIC), will handle Dreamcast network-related business.

At the autumn Tokyo Game Show, Sega announced digital imaging plans and showed a Zip drive attachment that will bring considerably more memory to the machine for online use.

In late September, Sega president Shoichiro Iramijiri, possibly in response to Sony's PlayStation2 broadband announcement, expressed his belief that Dreamcast could be connected to a Sega network via DSL or cable modem as early summer 2000 in Japan and shortly thereafter in the US. As with Sony's machine, however, broadband potential remains less of a issue on these shores at present.

It remains to be seen whether Dreamcast's modular design, whereby it 'grows' in parallel to the user's needs, will be a boon or a millstone. History dictates the latter, but then to look at history in the run up to Dreamcast's launch would have been to credit it with no chance whatsoever, and sales speak for themselves. And it's interesting to note that with PS2 Sony is essentially delivering modular technology, too, which should ease concern at Sega.

Power

For the immediate future, Sega's hardware obviously remains the undisputed champion. Yes, the standard joypads are among the dodgiest ever conceived, and the machine itself sounds like it's grinding on a bone at certain points during operation, but the PowerVR-based graphics chip, 16Mb of onboard RAM, and the Hitachi-engineered CPU have together provided a vehicle for one of the most explosive videogames ever – Namco's *Soul Calibur*. With Zip drive expansion and online play looming in the future, Dreamcast still has some distance to go before being surpassed by the impending technologies of Sony, Nintendo, and potentially Microsoft.

Software library

Sega's launch library had strengths, but the system's software lineup still has some glaring holes. Fans are *still* waiting for a driving game of note, and will have to wait a while until the likes of *Sega GT: Homologation Special*, *Metropolis Street Racer*, and *Crazy Taxi* make an appearance.

In terms of action games, meanwhile, *Soul Calibur*, *Power Stone* and *Sonic Adventure* are arguably the only must-have games officially available to UK gamers. With a run of releases up to Christmas including 'highlights' such as *WWF Attitude*, *Worms Armageddon* and *Soul Fighter*, PAL Dreamcast owners face something of a barren run in quality terms.

If Sega can take any consolation, it will be that few other companies played host to anything as delightful as *Soul Calibur* throughout 1999.

Incoming software

With *Shenmue*, *Dead or Alive 2* and *Resident Evil: Code Veronica* in the works, there are some significant titles on the horizon for Dreamcast

Tech specs

CPU	Hitachi SH4 200Mhz
GPU	NEC/VideoLogic CLX1 graphics chip
RAM	16Mb main operating RAM 8Mb video RAM 2Mb audio RAM
Audio	Yamaha AICA sound chip
OS	Dual *Windows*/proprietary OS
Drive	Proprietary GD-ROM, 1Gb capacity
Online	36K(UK/Japan)/56K(US) modular modem



owners, and many more that Sega has not yet announced. But considering the level of support that has already been announced for PlayStation2, quality Dreamcast products will be harder to come by in the future – especially from Japan, where development has slowed of late. Can Sega somehow follow Nintendo's model, which saw the company make the N64 a significant success in the US in the absence of large-scale support?

Marketing muscle

Following a highly successful launch, word remains out on Dreamcast. Although Sony and Nintendo will be shouting their respective merits from the rooftops throughout the crucial Christmas sales period, it will be hard for both companies to drown out the buzz surrounding Sega's new hardware. In a marketplace where hot new graphics can sell systems, Sega's timing with Christmas around the corner is perfect. The company's biggest obstacle will be targeting the average punter on the street, something it has already attempted with its lifestyle ad campaigns. Faced with a PlayStation at £60 and a Dreamcast at £200, though, it's easy to see where the layman is more likely to place his faith.

Prospects?

Sony and Nintendo intend to ship superior hardware next year, so Sega must use its year's head start as effectively as possible. The company needs to work hard day by day, ensuring that thirdparty support stays in place and more AAA titles make it to market. Sega also needs to get its online network up and running before hype surrounding the new consoles from Sony and Nintendo swamps Dreamcast. Sega's machine has some healthy years of life left in it, but seeing it as market leader is simply not an option right now



New formats need strong driving games, the staple components of today's gamers' diets. After an exhausting delay, Dreamcast will soon play host to three – *Metropolis Street Racer* (top left), *Sega GT: Homogolation Special* (top right) and *Crazy Taxi* (centre left). Crucially, the format's online gaming potential will be tested by *Virtual On: Oratorio Tangram* (centre right), which could give Sega's spirits a boost in Japan – at least in the short term. Meanwhile, RPG fans are left to patiently wait for *Shenmue* (above left) and *Eternal Arcadia* (above right)

DOLPHIN

Having lost the battle of the now generation to Sony, Nintendo soldiers on alongside some of the tech industry's biggest hitters

So far Nintendo has been quiet, announcing little more than partners (ArtX, Matsushita, IBM, and others), and price ("aggressive"). The current plan is to create an inexpensive, games-only machine, and for Matsushita to create a DVD player that incorporates Dolphin technology.

Power

There hasn't been so much as a tech demo to back up Nintendo's E3 Dolphin announcement during which **Howard Lincoln** stated that Nintendo's technology would be "as fast as anything our friends at Sony have." Nintendo has been extremely quiet since then, and September saw the cancellation of a presentation concerning ArtX's involvement with Dolphin's GPU. However, Nintendo has announced that the GPU will use S3's excellent texture compression. The unit will also feature embedded RAM, probably much more than the 4Mb PS2's 'Graphics Synthesizer' uses.

More partner announcements are also in the works, claims a Nintendo spokesperson. Presumably they will concern the areas the company still refuses to discuss: an online/gaming network. Unfortunately, the latest word is Dolphin will not be shown until Spaceworld next August. If this is true, a 2000 launch for the system in the west seems impossible. This will come as no surprise to avid Nintendo watchers – it hasn't shipped a system on time since the NES in 1985.

While the company often acts like it would **rather the market remain at 1987 levels** (with games firmly ensconced **in the realm of the children's toy),** Nintendo has been **capable of paradigm shifts**

Incoming software

Nintendo's greatest strength is its software, and Shigeru Miyamoto's teams are already at work on virtual environments that he says could be used in future *Zelda* or *Mario* titles. Rare, Retro Studios, and other companies close to Nintendo are also already at work on Dolphin titles as well. The big question is the larger thirdparty community, which has avoided Nintendo of late.

Nintendo's Jim Merrick thinks that situation will change: "This system is not going to have the barriers to entry that N64 did. There were various criticisms of the technology, some valid and some not, that the N64 was difficult to write for. We are addressing those on Dolphin."

Merrick says the development support staff at Nintendo of America has doubled in a year, and he believes the company is in a better position to proactively support the teams still learning Dolphin. "We've hired more people specifically for Dolphin, and we've brought in a couple of people with masters degrees in computer science to handle some of the things we expect to be seeing in terms of physics and other things."

Marketing muscle

The word 'Nintendo' may no longer carry the same weight as it once did, but the general public still knows the name, and this year Nintendo's marketeers will spend $150m in the US to create the illusion that there are years of life left in the N64. They will have some success in the States. Expect the same level of expertise for Dolphin.

Prospects?

Nintendo consistently produces innovative hardware (the analogue controller, etc) and software (*Zelda*, *Metroid*, *Mario* et al). While the company often acts like it would rather the market remain at 1987 levels (with games firmly ensconced in the realm of the children's toy), it has, over its 110-year history, been capable of dramatic paradigm shifts. Nintendo is the only company to remain profitable after a generational shift. It has some insanely powerful strategic allies, but crucially they are in the field of hardware, not software. This issue will be of tantamount importance in the company's performance in the next-generation battle. Great software from NCL simply will not be enough.



Relax – Dolphin games will look much better than this. But PC title *Midnight GT* shows S3's texture power at work

Tech specs

CPU	400MHz 18-micron copper process 'Gekko Processor' (IBM-designed-and-manufactured superset of PowerPC)
GPU	200MHz custom chip from ArtX, featuring S3's texture compression technology and embedded DRAM
Drive	DVD by Matsushita, which will incorporate 'enhanced anti-counterfeit technology'

X-BOX

Microsoft knows victory only too well. But how will the company take on opposition from Japan's three leading console engineers?

By the time you read this, there's a good chance there will have been an X-Box announcement. Insiders have intimated that the system will be announced at the annual Las Vegas Comdex, which runs from November 15-19. It is likely that the system will be positioned as console/PC hybrid designed for the living room.

Currently believed to be partnered in the X-Box project are Intel and nVidia. And while it's well known there was a very private showing of X-Box to analysts at ECTS, the most recent person to go on record with knowledge of the device is Yoshihiro Maruyama, the vice chairman of Square EA.

While Maruyama mentioned 3Dfx as a possible graphics chip provider for X-Box, however, it is more likely to be nVidia's GeForce 256. It may have been the loss of the X-Box project to nVidia that forced 3Dfx president Greg Ballard to resign in early October, since, if X-Box goes to nVidia, 3Dfx will have failed twice to deliver its technology into a massmarket console project.

Power

Microsoft has not even admitted the system exists, coyly saying only that "we have made no announcement about that," never mind shown as much as a tech demo. But the power of nVidia GeForce 256 is established. At 15m polygons per second, the chipset also takes on transform and lighting responsibilities, freeing the CPU to handle AI and advanced physics modelling.

Incoming software

There is no current library of specific X-Box titles, but soon after the system is announced the first X-Box-enabled PC games, which should run on both X-Box and PC, will be released. By the Christmas of next year, some experts expect most PC games to be X-Box compliant.







If, as is believed, Microsoft's console uses GeForce and not a solution from 3Dfx, performance of these sort of levels should be expected. Crucially, nVidia's technology offers hardware transform and lighting, which will take a significant load off the CPU

Marketing muscle

Considering how much it will cost to bring this project to fruition, a comprehensive plan will be in place to convince consumers that X-Box is a worthwhile purchase. Whether that marketing push will come from Microsoft itself, or X-Box hardware partners like Dell or Gateway, is unclear, however.

Prospects?

If Microsoft and its partners can deliver something that appeals to traditional console buyers, this machine certainly has a fighting chance. However, there are problems that will need to be solved first. With an open system, multiple manufacturers, and the fact that PC titles regularly ship with bugs, Gates and chums have more to sort out than a launch date.

Tech specs

CPU	500MHz Intel processor
GPU	nVidia GeForce graphics processor (unconfirmed)
RAM	Internal hard drive (memory TBA – estimated at 6/8Gb)
OS	Modified *Windows 2000* operating system
Online	Built-in 56K modem
Drive	DVD-ROM with proprietary coding to combat piracy

PREPARING FOR WAR

The reigning champion

SONY

Sony's arsenal

Thirdparty software support

Nintendo decided to continue to work with cartridges, and Sony leapt in, never to look back. Right across the globe, everyone wants a slice of the software revenue Sony's new machine has the potential to bring, and that's reflected in the amount of third parties signed to the format – over 200 worldwide. The machine doesn't launch until March, but over 160 games are in development.

Raw power

PS2 is the most powerful gaming device known to man. Nintendo has even not dared to claim that Dolphin will be more potent – an ominous sign.

Consumer awareness

The PlayStation brand is as established as any in the market, with tens of millions of devotees.

Sony's weak spots

No comms as standard

While PS2 will be able to deliver the obvious parts of the equation (graphics, audio, etc), it will not ship with a modem. Sega will have been selling the console comms dream for over a year by the time Sony's machine launches, which will, if not upset, at least affect the apple cart.

The vagaries of multimedia

Sony has created a format with design values that lean more towards the Philips CD-i than they do the original PlayStation. It remains to be seen how much aesthetics affect consumers' buying decisions, but Sony is sending alien signals.

Software deficiencies

Emotional content? Where? Sony must deliver soon if its loud trumpetings are to be believed.

Odds of winning the next-generation war: 1/2 (fav)

The battle-scarred veteran

SEGA

Sega's arsenal

Being first out of the blocks

Over a million western consumers have shown Sega that they are bored of what their PlayStations can do, and have jumped on to the Dreamcast bandwagon. Now, if Sega can keep it rolling…

In-house development talent

Sonic Adventure may be flawed, and the AM departments may not be throwing new titles on to the format by the week, but the fact remains that some of the most imaginative and talented game engineers are working within the walls of Sega Japan.

The existence of X-Box/PC

If X-Box does complement the PC as it is believed it will, then it will form another game resource for Sega's baby. *Half-Life* could kickstart a revolution.

Sega's weak spots

Being first out of the blocks

Sega shot its bolt in hitting the Japanese market some 16 months before Sony was willing to deal its hand (and Nintendo even later), and the respective age of the hardware will be brutally apparent once PS2 coders get into their stride.

Lack of software support

Despite doing a much better job than it managed with the Saturn, Sega has struggled to romance developers on a truly convincing level. While Namco prepares to launch a volley of PS2 titles, it refuses to commit to more of *Soul Calibur*'s calibre.

The modular risk

Sega is intent on delivering add-on after add-on for Dreamcast, despite its past failures. Console gamers like standalone units, it's that simple.

Odds of winning the next-generation war: 7/2

A summary of what each of the four contenders will be bringing into battle, and odds on their ultimate success

The gentle giant

Nintendo's arsenal

Intellectual properties

No other company can boast such a broad and established range of characters and themes, from Link, to Samus Aran, to a certain vast range of pocket-sized creatures. Nintendo does not need to waste time conceptualising new heroes or villains; its paying public demands more of what it knows.

Experience

Nintendo has experienced everything in this industry – but mostly vast success. Because it has been so willing to take risks, it has made a number of blunders (see Famicom disc drive, Virtual Boy, N64 carts), but these only make the company, led by the fearsome Hiroshi Yamauchi, more driven.

In-house development talent

Two words: Shigeru Miyamoto.

Nintendo's weak spots

The N64

It proved a relative success in the US, but Japanese and European consumers have been largely disenchanted with Nintendo's 64bit machine. Having been promised the world with the N64, many of these consumers have lost some faith in the Nintendo brand.

Lack of thirdparty support

Apart from Rare (in which Nintendo has 25 per cent ownership), no other thirdparty developer has delivered regular, quality releases for Nintendo's 64bit platform. Despite being offered a system that is reputedly more accessible than PS2, developers appear no more eager to wed with Nintendo now.

Dependence on in-house development talent

Two words: Shigeru Miyamoto

Odds of winning the next-generation war: 9/4

Big brother

Microsoft's arsenal

The PC

Convoluted it may be, but the PC is the most used, and the most widely supported, gaming platform in existence. It is proposed that future PC releases be released in X-Box-compliant form. Were this to really kick in, Microsoft would have a console with a range of games to overshadow even Sony.

Power

Like Dreamcast, the proposed specs for X-Box derive from off-the-shelf technology. But the specs are punchy, with enough power to sit comfortably above Dreamcast and not far short of PlayStation2 – enough to give Microsoft a fighting chance.

Accessibility

When were PCs games playable out of the box? Very rarely. Which is where X-Box comes in.

Microsoft's weak spots

Lack of experience

Microsoft's expertise is in hardware, not software. The company is purported to have fostered some excellent alliances, but Bill Gates may wish to have a chat over a few beers with Trip Hawkins before he jumps into this arena with both feet.

American technology doesn't cut it

An American-designed console hasn't enjoyed any form of worldwide success since the Atari VCS brought the videogaming world crashing to its knees in the '80s. A dangerous legacy.

Future-proofing considerations

Why are PCs such viable gaming platforms? Partly because they're so transformable – buying a hot new graphics card can change everything. How will X-Box fit into this established culture of change?

Odds of winning the next-generation war: 7/1

HERE IS THE FUTURE

In a nutshell, how is the war going to be won? Here's the answer, and a Nostradamus-like look at how the aftermath will shape up

The elements that will make or break a format in the war of the next generation are manifold, but one in particular counts above performance, cash, everything – software.

It's no coincidence that Atari's Jaguar and 3DO's Multiplayer did not gain support of any note from Japan. Where was the commitment from SquareSoft, Namco and Capcom, three of the most important software companies in the world?

More recently, how have these companies supported the N64? Having been in bed with Nintendo for a decade, Square was quick to jump out in the mid-'90s. Namco, meanwhile, offered a couple of cutesy, Japan-only baseball games. And Capcom? Capcom graced Nintendo's machine with *Magical Tetris Challenge* starring one Mickey Mouse. (Does the software company deem the N64 something of a Mickey Mouse console? Nintendo top brass would surely rather not think about it.) It's only now that the N64 is getting *Ridge Racer*, some five years after it appeared on a rival platform, and *Resident Evil 2*, a game that's beginning to look as ragged as the zombies that populate it.

Sony has the development world at its feet – including all the scuzzier elements responsible for crimes against videogaming – and this is one of the reasons why the company will sell more PlayStations this Christmas than Sega will Dreamcasts. In the eyes of the layman – the guy each and every console manufacturer is attempting to lure – the armies of PlayStation games looming large over the battalions of Sega and Nintendo titles will be a signal in themselves.

Unless the company suffers some freak catastrophe, Sony will run into 2001 and beyond with software support the like of which no other company can even hope to follow. And then it can begin to work on what it's *really* interested in...

The (far) future is online

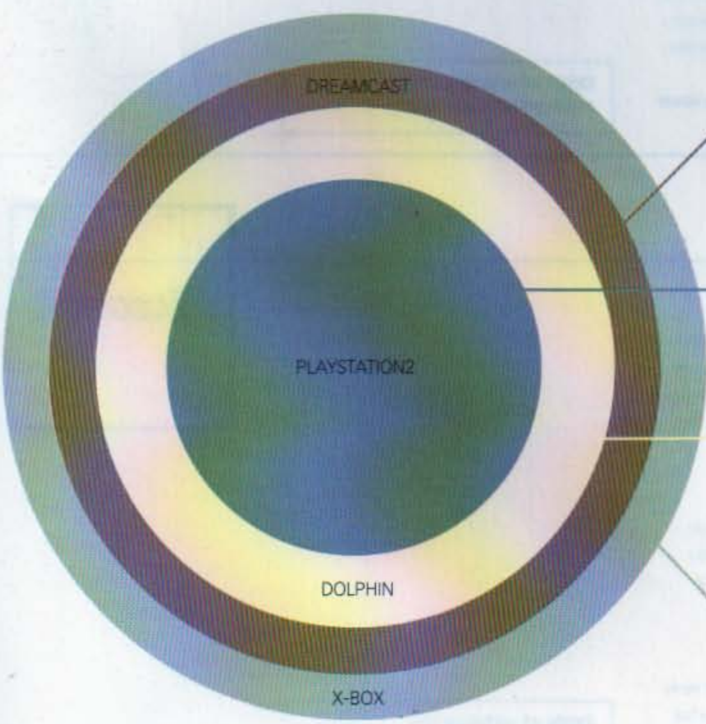
Connectivity is the future for consoles in the home, of course. But existing network setups are not yet stable enough, nor accessible enough, to be a real force in the super-mass market. Some five years after Web browsers became commonplace, Joe Average hasn't even seen a Netscape product, let alone gained understanding of even something as fundamental as a bookmark.

Unlike its contemporaries, Sony is not interested in today's comms technology. The company's Phil Harrison says that its "long-term strategy is broadband, what we call the 'network digital entertainment market,' which is a very ambitious goal, something that is going to take all our focus as a company to achieve. We will create a whole new market and then claim it. We're basically leapfrogging what you would describe as the Internet today. What everybody knows today as the Internet, which is basically HTML, is of no interest to us in the long term."

Sony is so confident that it will have the core videogame business nailed by the time it rolls out its broadband service in 2001 that it feels comfortable talking publicly about its post-game machine plans. Given the power of PS2, it's hard to disagree: the real question is whether or not Ken Kutaragi's new forms of 'computer entertainment' will be the killer apps that Sony expects.

It's easy to say that you will decide how the next-generation war will pan out, but that's simply not true. As an **Edge** reader, your interests will lie right across the diagram featured left. No, this one is down to Joe Average.

WHEN THE WAR IS OVER: EXAMINING THE FALLOUT

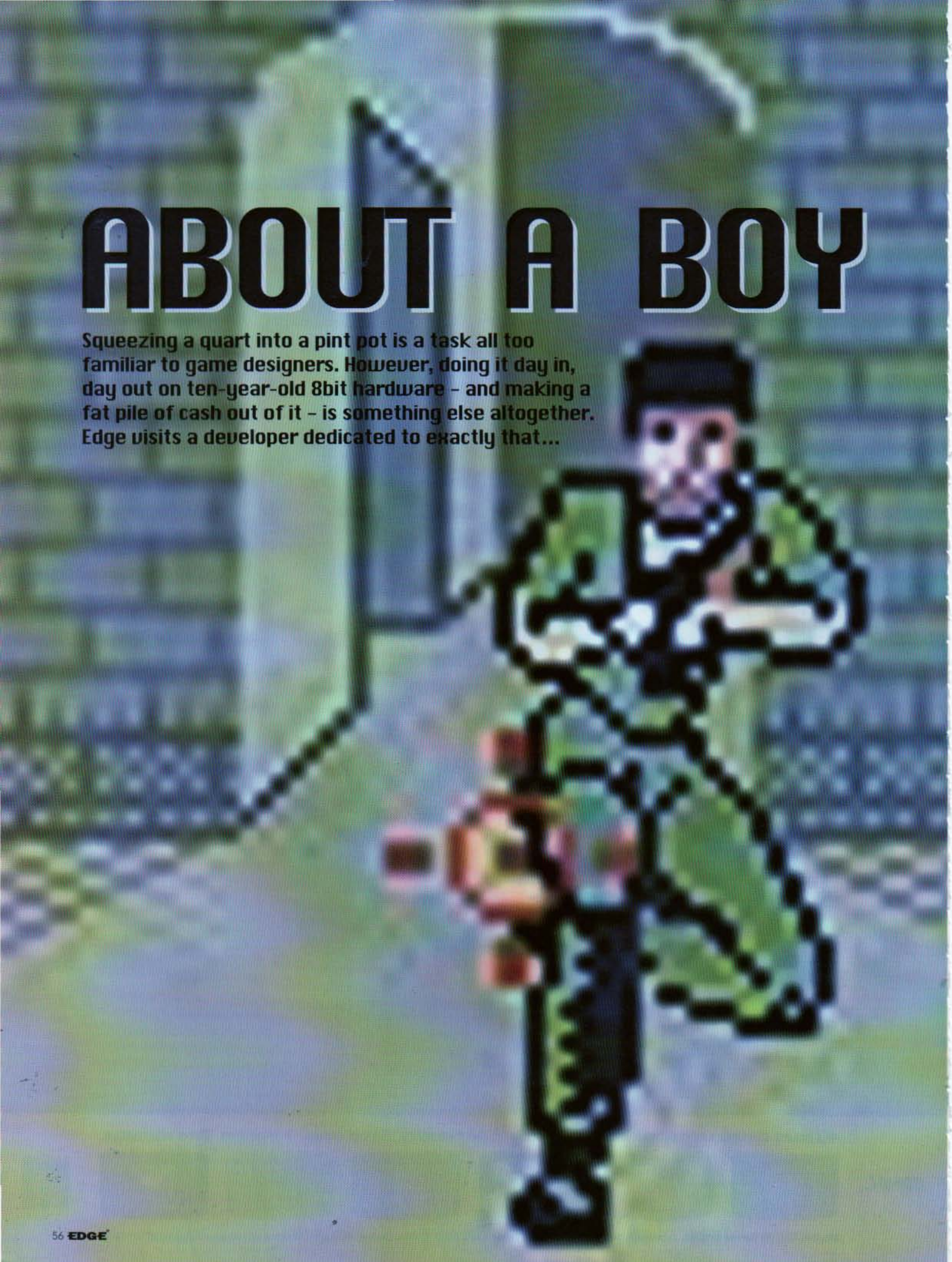


■ Super-hardcore territory, where gamers go to play home conversions of the finest coin-ops, plus some of the most original software from Japan

■ The super-mass market, with its updates of *Crash Bandicoot* and *FIFA*, and its DVD movie collections, is drawn here. Sony will then hit it hard with 'computer entertainment', in whatever form that eventually takes

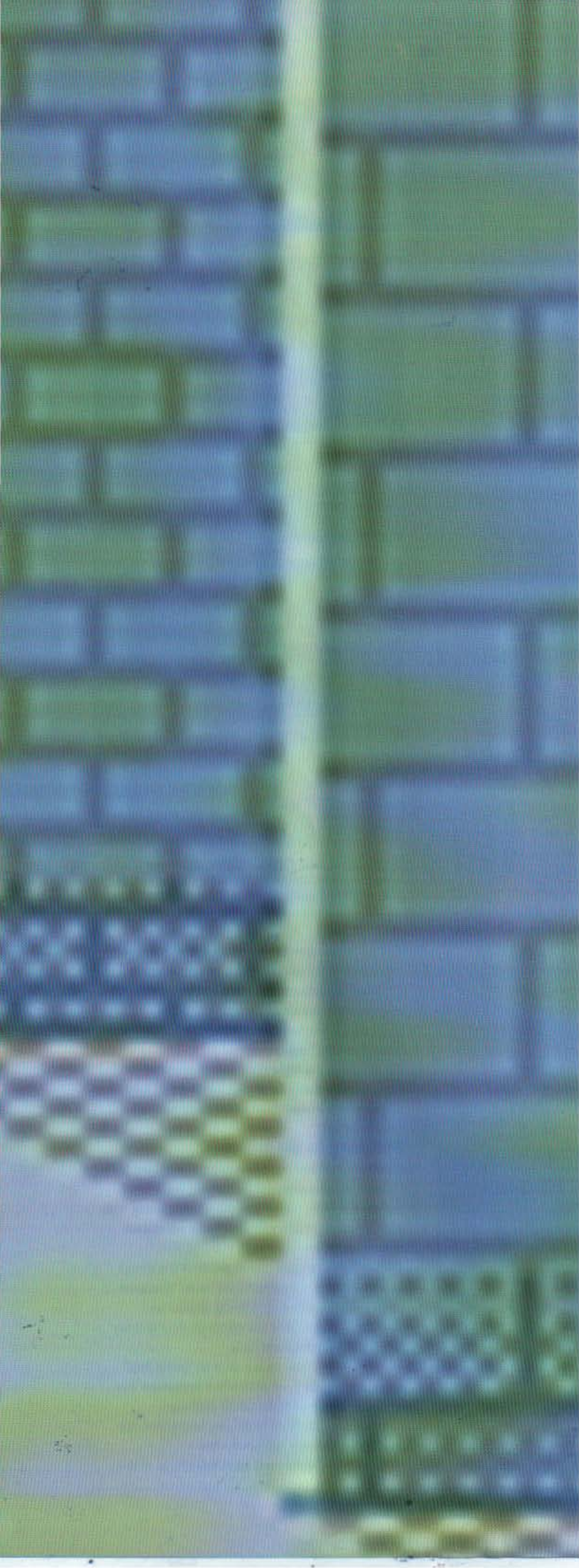
■ Families, drawn to a range of kid-friendly software, and hardcore gamers, with their desire to see What Miyamoto Did Next, seek solace here

■ Unknown territory. Filling this will be the biggest challenge of Bill Gates' life



ABOUT A BOY

Squeezing a quart into a pint pot is a task all too familiar to game designers. However, doing it day in, day out on ten-year-old 8bit hardware – and making a fat pile of cash out of it – is something else altogether. Edge visits a developer dedicated to exactly that...







Most startup companies that **Edge** visits are cut from the same cloth. A clutch of talented staff have brought experience of working at some major developer where they've outgrown their roots and have wanted to break out on their own.

Maybe they've got a hit or two under their belts and want to reap the rewards from their next effort. Maybe they're tired of the corporate atmosphere of a big firm and want to concentrate on development. Or they crave the creative freedom to realise their masterpiece. It could be a combination of all three.

But that's not the case with Crawfish Interactive. Set up in June 1997 by freelance programmer **Cameron Sheppard**, this is no ordinary, nascent videogames outfit.

After two and a half years, most companies would be nervously getting ready to release their first opus, anxiously awaiting review scores, hoping for another publishing deal.

Not so Crawfish. It is working on its 14th project and mulling over offers for a further 29 received at

Crawfish's half and half conversion of Rainbow Six is its most ambitious project and shows the kind of problems it faces day in, day out

the last ECTS. But chances are many **Edge** readers won't have read a single review of any of its games.

Why? Because they're all for that most lo-fi of consoles, the Game Boy.

Back to basics

By coincidence, Sheppard began working in the games industry in the same year – 1989 – that Nintendo launched its 8bit handheld phenomenon. After starting at that crucible of Australian videogames, Beam Software, Sheppard left his homeland in 1994, invited to the UK to freelance for Probe on a Game Boy conversion of *Mortal Kombat 2*.

After three years, Sheppard set up Crawfish in Probe's stomping ground of Croydon.

Sheppard admits that being a bespoke Game Boy developer was never a definite aim. "We've sort of fallen into this niche because we've built up the tools, expertise and a reputation," he says.

"We are getting well known. Publishers are coming to us, which is nice. A year ago we were still trying to sell the idea that we were a developer but with all this stuff under our belt now we're established."

All the titles Crawfish has developed have either been original titles based on licences, conversions, or curious hybrids adapting original PC and PlayStation titles to the confines of the Game Boy – half and half, as Sheppard calls them.

It's one of these half and halfs that has helped raise Crawfish's profile of late – a port of Red Storm's soldier sim *Rainbow Six*.

The game's gone from being a firstperson







Coder Dave Theodore and a selection from Crawfish's ocean of titles

tactical shooter which used the not-inconsiderable power of a high-end PC with 3D acceleration to being a sprite-based, top-down conversion that seems to use all the not-considerable power of the Game Boy Color.

What's turned heads is that *Rainbow Six* on the Game Boy, while looking nothing like the PC version, has all the gameplay features of the original.

"To tell you the truth," concedes senior producer **Tim Broadstock**, "I think we were a bit too adventurous. It's annoying because at Crawfish we want to do the best we can possibly do on the machine but, like everyone, we've got our time limits.

"The publishers wanted it ready for the N64 and PlayStation releases. We said, 'Well, we think we can do it,' but now it's come down to it, it's such a big task and it's punishing us."

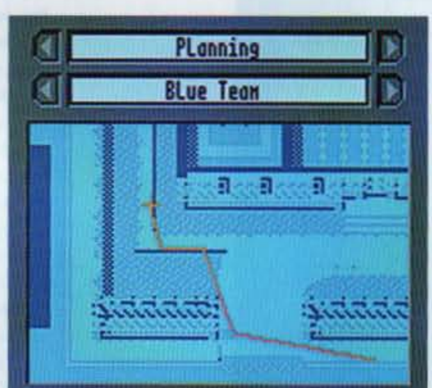
Among the things punishing Crawfish's *Rainbow Six* team is the adaptation of the sniper mode. The original used the familiar zoomed-in scope popularised by *GoldenEye*, but this could never work on the Game Boy Color. Instead, sniper mode is a zoomed-out, scaled-down version of the same level map. "It's a bit fiddly and a bit hard to see, but it's the best it can be done," admits Broadstock.

"We wracked our brains to find a way to do it and this seemed the best. I sort of wish we hadn't done it, because there are double the headaches.

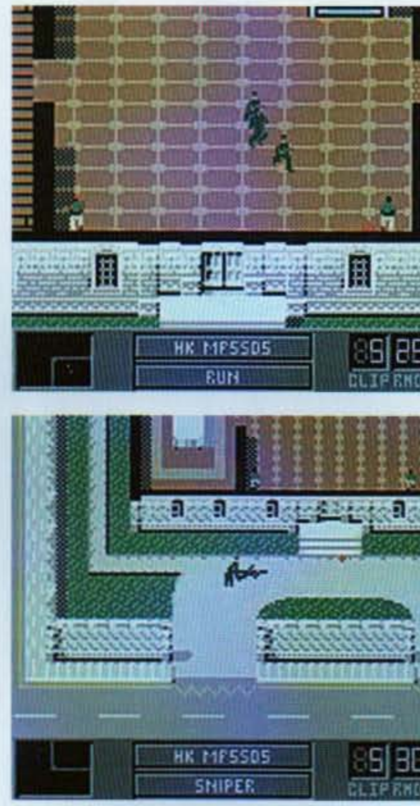
"All the collisions are based off it and anyone can do what they can do in the normal game. It's bad enough having 16 missions that you've got to bug test, but as you can do everything in sniper mode as well, it's like having two games."

But the limitations of the machine have helped Crawfish out in another aspect – the night-scope mode.

"Everyone seems to want their fingers in all pies. People are going, 'Oh, PlayStation2's coming along. We've got to get on the boat or we'll miss it.' Well, what's wrong with missing it?"



2D or not 2D is not the question – every aspect of *Rainbow Six* must be addressed this way



The same, but different: GBC *Rainbow Six* has the key elements from its PC parent, it just them flaunts them a little differently...

The limited palette and small size of the sprites mean they automatically blend into the scenery.

"The camouflage uniformed sprites are actually very similar in colour and brightness to the background. You can only see them when they're moving around," explains Broadstock.

"So, what the night sight does is give the background a dark palette and the sprites a light palette which makes them really stand out."

Blessing in disguise

Crawfish's half and half conversion of *Rainbow Six* is its most ambitious project and shows the kind of problems it faces day in, day out when working with a ten-year-old, 8bit format which was antiquated even when it first came out.

"We take the spirit and as much of the design as we can and do a game based on it," Sheppard says. This approach is now being applied to Reflections' *Driver*, and the transformation is every bit as drastic as *Rainbow Six*'s.

"We asked, 'How do we do it on Game Boy?' We looked to see if we could do it firstperson and we could if we had three-colour buildings.

"But we don't think that's very impressive. It's a lot better having a top-down view.

"The titchy sprites and basic city blocks of this





version look more like an 8bit *Grand Theft Auto* than *Driver*, but the machine's limitations again played a part in this. Technical reasons said it had to be this scale, because of the size of the maps," adds Broadstock.

"The maps are so big that there are only certain ways we can do it. If we made the car a few pixels bigger then the overall map would be massively bigger because it's a whole city."

But as PC *Driver* is so far removed from this Game Boy conversion, couldn't Crawfish – or more correctly, *Driver*'s publisher GT Interactive – be accused of exploiting the name?

After all, the Game Boy has suffered from years of substandard platformers, loosely based on licences and banged out with little concern for the game or the gameplayer.

Sheppard is aware of this concern: "You do see some Game Boy games which are just riding on the name without any regard to what the licence is. Hopefully, people can see that we try to do our best."

Both *Driver* and *Rainbow Six* are only for the Game Boy Color. The original Boy simply couldn't cope with the size of these titles.

"Game Boy Color is only a marginal improvement over the original Game Boy, spec-wise," claims Broadstock. "But there's so much more you can do."

There is only so much that's possible on the machine and Broadstock and his small team are stretching it to the extreme.

The programmer who coded *Godzilla* reckons he's got a way of getting around the hardware limitation of 40 sprites on screen. He believes he can get about 200 on screen by doing things with interrupts. That's the next thing to play with.

A conversion of *Street Fighter Alpha* forced Crawfish to confront yet another limitation of the Game Boy. "I'd love to have some extra buttons," says Broadstock.

"It's a pain in the arse. Because of that, we've only got a light and a hard punch, no mediums."

Crawfish has still managed to fit in all the taunts, special moves and super specials, though, even if the timing for the control moves had to be slowed to allow for the altogether clunkier Game Boy D-pad.

The height and width of the sprites has been a problem too, because the Game Boy can only handle ten sprites in a row before flicker becomes an issue and they start blanking out.



Producer Tim Broadstock ponders giving some obscure Taito game the GBC treatment

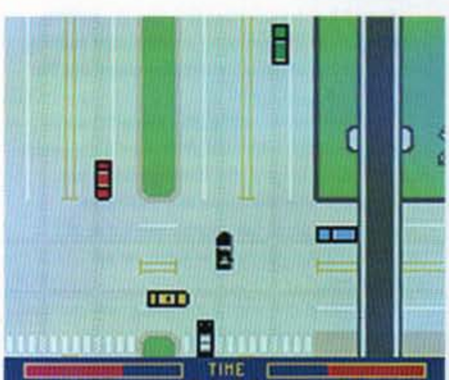
"You've not got a CD to slap it on, you've got this tiny little cartridge you've got to fit it on. It's nice to have these limitations, then you concentrate on the gameplay"

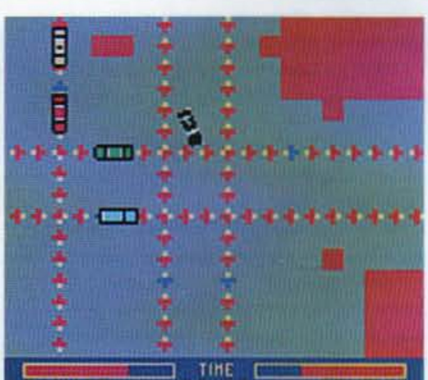
Short and sweet

Despite all the compromises that developing for the Game Boy entails, Crawfish is more than happy with its chosen platform.

For one thing the development times are far shorter than for higher end platforms – about six months per game on average.

"It's a nice length for a project. You've got



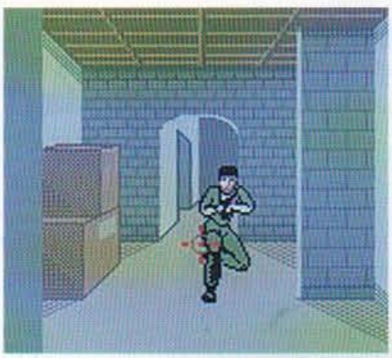


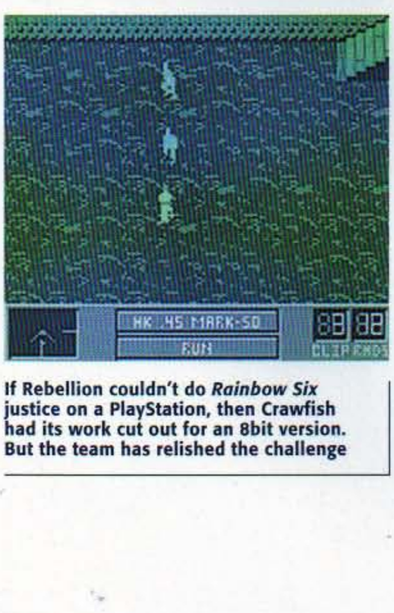
It looks more like *Grand Theft Auto* than *Driver*, but a top-down view was the only way to go when Crawfish considered a conversion of Reflections' game. Without the 3D glitz, though, what is left?





Method man: Crawfish chief Cameron Sheppard





If Rebellion couldn't do *Rainbow Six* justice on a PlayStation, then Crawfish had its work cut out for an 8bit version. But the team has relished the challenge

enough time at the beginning to get familiar with the design and make sure it will work," says Sheppard. "It's great having a short turnaround. You don't sit there for two years doing the same old thing."

Team sizes are also small, with typically one programmer and perhaps two artists per game, along with support staff such as a musician.

"One programmer is common for Game Boy as it's really hard to interlink stuff," offers Broadstock. "If the programmer's got, say, the legals screen and he thinks, 'Oh, I'll stuff that in that bank,' and you have two programmers doing that, it's like, 'Hang on, you used my space.' 'No, you used my space.' It just would not work.

"It's totally different to, say, PlayStation programming, where you can split off the front-end and other stuff like that.

"With the Game Boy, you've not got a CD to slap it on, you've got this tiny little cartridge you've got to fit it in."

Sheppard and Broadstock agree that the unsophisticated nature of the format is a blessing rather than a curse.

"It's nice to have those limitations because then you concentrate upon the gameplay," says Sheppard.

Broadstock agrees: "Because we have boundaries. We don't have some person at a publisher going, 'We want to do this and that.' We can just say, 'Well, no. It can't do it.'"

But surely, **Edge** ventures, it must get frustrating, working with such old technology when everyone else is polishing their proverbial bells and whistles?

"It can be a bit disheartening," admits Sheppard. "We don't get the exposure the higher platforms get.

"We put a lot of effort into it but the attitude is that it's just a Game Boy game and we end up in a Game Boy magazine. That's only a small thing, though."

Broadstock has a different slant on this: "Everyone seems to want to have their fingers in all the pies. People are going, 'Oh, PlayStation2's coming along. We've got to get on the boat or we'll miss it.' Well, what's wrong with missing it?"

Crawfish has certainly identified a gap in the market and filled it, but remains modest.

"I'm not saying that we're getting so many offers because we're brilliant," stresses Broadstock. "It's just that, now, every company that's making a game wants a Game Boy Color version to go with it."

Despite the expected resurgence of the Game Boy post-*Pokémon*, most publishers seem happy to farm out conversion tasks to companies such as Crawfish, perhaps sceptical of the format's longterm survival.

Broadstock identifies another reason: "The higher end stuff on PCs is all C-based so you can get in people who haven't really worked on games before.

"But Game Boy Color is a language of its own, a cut-down, bodged version of Z80, and if you don't know it you've got to learn it.

"It'll take a couple of months to learn, a couple of years to learn to get the best out of it. So why not go to a specialist instead?"

World of its own

Broadstock doesn't believe the Game Boy is an entry-level training tool for the industry: "We're not learning anything about doing games for other platforms from doing this. It's a completely separate entity."

From a business perspective, though, working with the Game Boy has been an invaluable learning experience for Sheppard, a stepping stone into the industry for his company.

The fast turnover of titles has helped Crawfish build relationships with publishers even if the profit margins are as small as the development times.

Sheppard sees the Game Boy and future handhelds as part of the present and future of the company but also has his sights set on bigger things.

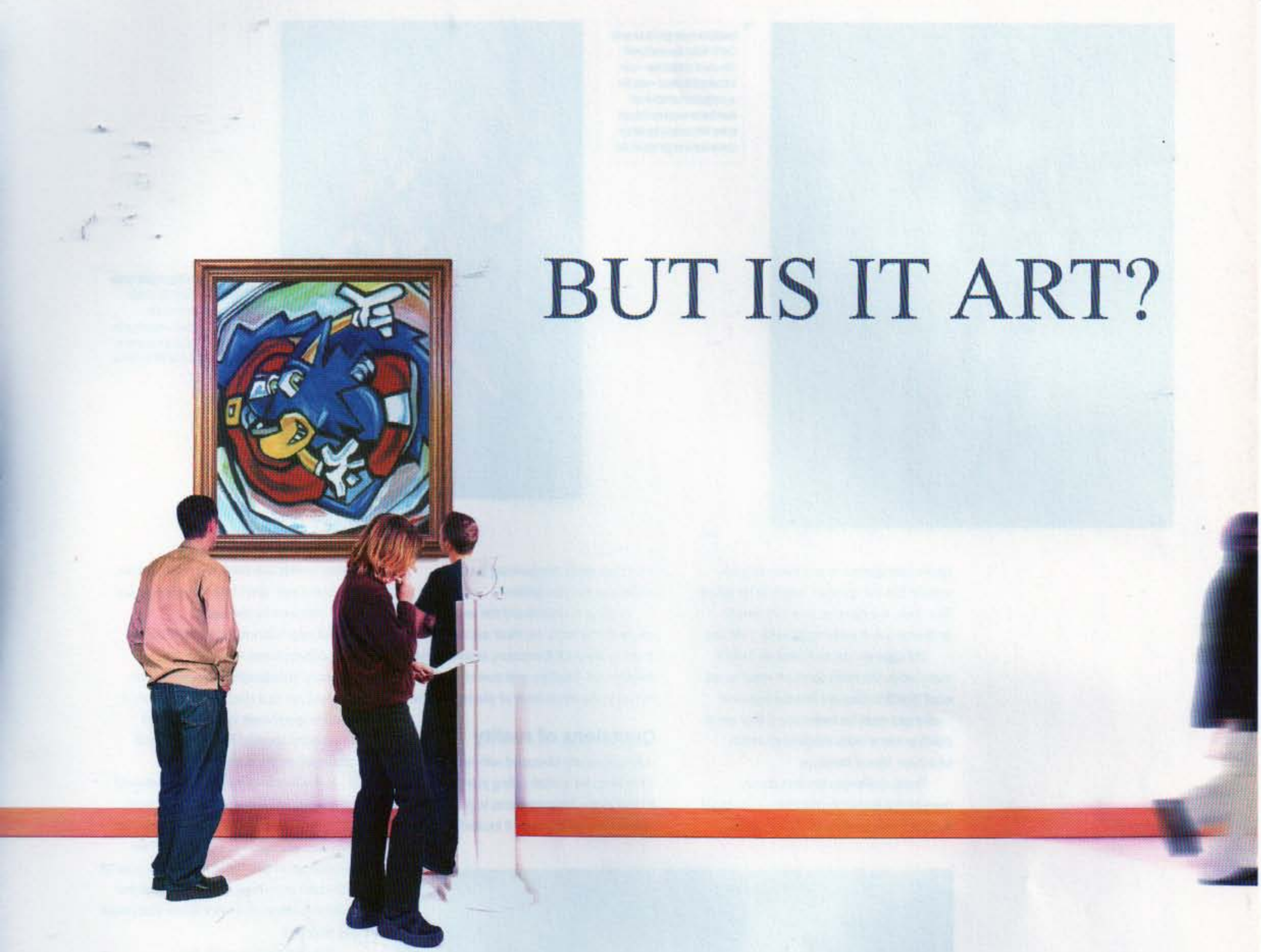
"The plan is that what we're doing now can fund the company," states Sheppard.

"I would like a team or two to start on original ideas that we can develop ourselves and approach a publisher once we've got a decent demo together. Hopefully, that will happen next year."

> "Higher end stuff on PC is all C-based. **You can get in people who haven't** worked on games. But Game Boy Color is **a language** of its own. It takes a couple **of years to learn** to get the best out of it"



Photography: Pete Loretz Illustration: Estelle Cork



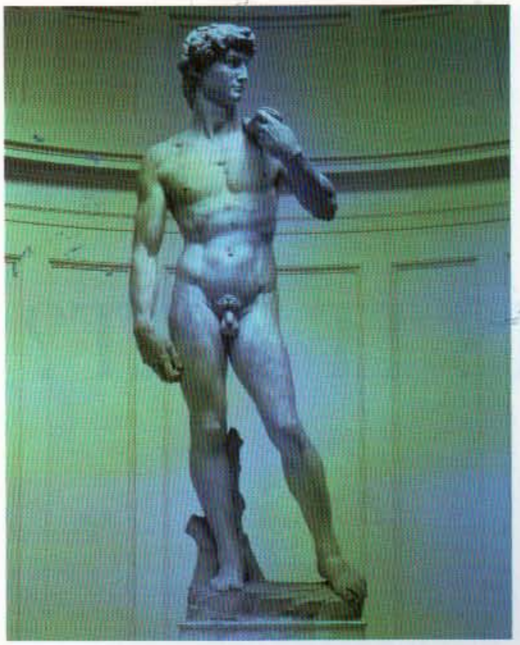
BUT IS IT ART?

Videogames lack the intellectual credibility of art, television or film. But apart from a coterie of artists, critics and the intelligentsia, nobody knows what art is any more. So, Edge asks, what exactly is videogaming?

It's a simple enough question, you might say, if a strange one to ask. But it is a vitally important one. And nobody seems to have the time or temerity to answer it.

Developers are too busy trying to secure finance for their projects and steering them through their ever longer gestation periods. The specialist press, both trade and newsstand, has neither the writers nor the remit to explore the subject of what the videogame culture is. At least not in any detail.

And the mainstream press and the academic world, who are probably best equipped to tackle such a question, either



David Michelangelo Buonarroti (1475-1564). How real is real? The use of perspective – as in Michangelo's David – was the accepted convention in art from the renaissance through to the 19th century. It is still the convention that games aim for



Nude Descending A Stair Case Marcel Duchamp (1887-1968). Changing reality: this work attempted to catch movement on a canvas – the Cubist response to another 'reality', that of the cinema

ignore videogames or pay them only lip service. But the question needs to be asked. This, then, is a polemic, one that tries to understand and seeks to provoke a debate.

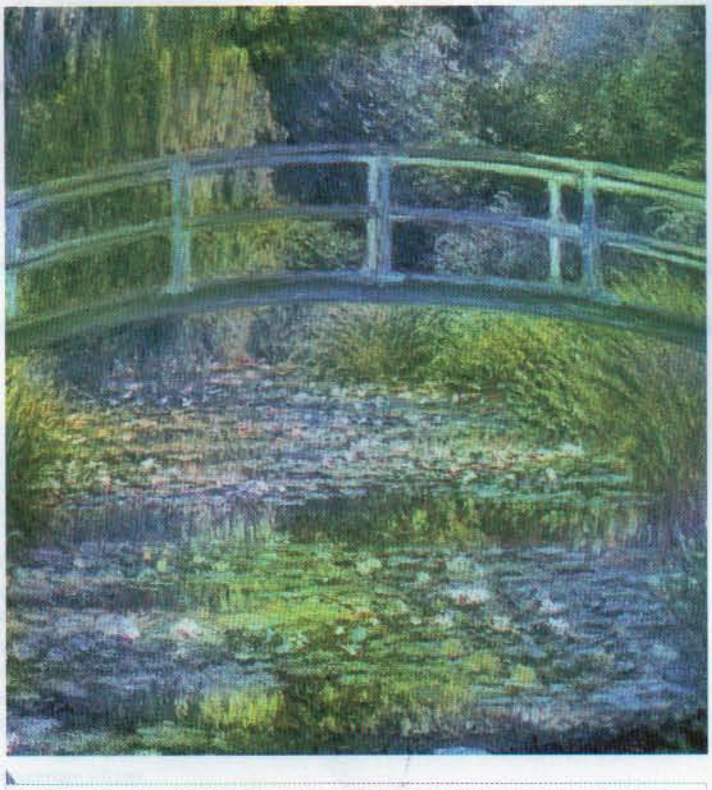
Videogames are an immature form in many ways. We don't so much need to ask what direction they are headed but what challenges must be overcome if they are to develop into a mass medium to match television, film or literature.

These challenges are less about overcoming technical difficulties – the usual level at which periodicals discuss games – and more about appreciating the basic limitations and possibilities.

In trying to understand the essential nature of the form, we must ask questions about reality and abstraction, emotion and detachment, freedom and control – all central to the experience of playing a game.

Questions of reality

Videogames are obsessed with reality. It has become a chief selling point. Almost every designer wants to provide experiences which, even if located in fantasy worlds, are somehow real. Games that somehow don't feel real enough are often criticised by reviewers.



Waterlily Pond Claude Monet (1840-1926). Feeling real? Monet's Impressionist paintings of his garden at Giverny reveal his desire to capture how the scene felt and seemed rather than how it was in reality. Should videogames also seek to distil life rather than replicate it?

But why is this the case? Realism in other cultural forms – painting, film, television, photography – has long been accepted not as a direct representation of what the world really is but as a set of conventions adopted by the maker and recognised by the audience.

In the history of art, the introduction of perspective and the subsequent accurate depiction of anatomy became accepted as what was real from the beginning of the Renaissance in the 15th Century. This idea of real wasn't even new, itself a revival of the classical tradition of ancient Greco-Roman art and sculpture.

This perspectival reality was considered real until Edouard Manet's rejection of this style in the 1830s. It's also no coincidence that Manet and his fellow Impressionists' rejection of this form happened at roughly the same time as the invention of photography.

Its arrival meant the perspectival, anatomically correct art that had been accepted as real could suddenly be achieved with far greater fidelity in an instant. This forced artists to address what they were trying to do. Manet's response and that of every school of art from the Impressionists through to Marcel Duchamp was to try to paint the feeling of reality.

Colours and shapes became more abstract, less an attempt to physically replicate how something appeared to the eye, more an attempt to capture how something felt emotionally to the artist and, once they'd accepted these new schools of thought, the viewer.

Take Claude Monet's famous collection of paintings of his garden at Giverny with all those water lilies. They may resemble splodges of colour on a canvas but they capture a sensation and feeling of looking



Articles Of Glass W. Fox Talbot (1800-77). The advent of real photography in the mid-19th century meant that no matter how 'real' paintings attempted to be, the could never be as 'real' as a photo, resulting in the development of modern art. Videogames may face a similar transformation when photorealistic graphics become the norm



The Piper Edouard Manet (1832-83). An early impressionist painting, showing the response of artists to the development of photography. Gone is the background in perspective – instead, the piper is set against a plain, formless background of colour

at the garden that, many would argue, a photograph wouldn't.

And when photography itself begat cinematography, art responded by redefining itself with the Cubist movement. Pablo Picasso and Marcel Duchamp attempted with their fractured approach to perspective to show multiplicity and movement.

Definitions of reality have helped determine the history of art up to the first part of this century, and it's the same story with film and television.

The early pioneers of cinema, such as the Lumiere brothers and Georges Melies, originally took their lead from theatre and photography, composing wide shots with little or no camera movement.

As this changed, film making and the accepted conventions of what is real for the audience developed to include things such as medium shots, moving shots and close-ups, all edited into sequences.

But realism in film, as in art, is merely a convention. What is often taken as real now derives from cinéma vérité and direct cinema. These movements of the late 1950s and early 1960s, spearheaded by film makers such as DA Pennebaker, eschewed the studio filming and extensive lighting of establishment films. They shot on the streets, handheld, copying the approach of newsreel cameramen. After all, what could be more real than the news?

The shaky camera and the underlit image have almost become clichés of what is real for television, something to give shows like 'This Life' and 'NYPD Blue' a hard-hitting, contemporary edge.

Videogames are even more obsessed with the real than either art or film. Why is this? Most likely it is because they are a new cultural form. Videogames lack the intellectual credibility of film, television or art.

To offer up a mirror to the world, to make an artificial copy of something we see with our own eyes is, if the history of art and film is anything to go by, a basic human need and desire. Cultural forms have been defined by their ability to get real, and compared to other forms, videogames are not yet real enough.

To draw a parallel with the history of art, videogames are, at the very least, still waiting for photography to be invented, perhaps even for the Renaissance to happen.

In the beginnings of art, form was highly abstract with cave paintings giving way to hieroglyphics and other stylised images. This art bore only a passing resemblance to reality. It was symbolic representation. *Space Invaders* was a symbolic representation. So was *Pole Position*. So is every single videogame.

But unlike in the development of art, photography and film, videogames have had to develop with all these other forms, history bearing down upon them.

Videogames have therefore always been torn between the abstract, from *Pac-Man* to *Pa Rappa*, and the real, from *Night Driver* to *Gran Turismo*.

With these attempts at abstraction and realism going on simultaneously throughout as videogames develop it remains difficult to define exactly what is essential to the videogame rather than just a stylistic approach.

Even that most seemingly real of things, the firstperson perspective, could be something of a blind alley for videogames development. Its conventions work fine when portraying reality in the static frame of a painting, or even the moving frame of the cinema image.

But unlike the viewer of art or the audience of a film, the gameplayer is an active participant in the frame.

To be able to make a decision the player needs as much information as possible. The firstperson perspective image never gives enough information. It cannot compensate for the lack of peripheral vision.

This simple problem highlights one of the major challenges facing videogames today – the reality check. As the visual and aural quality of videogames moves closer to reality, gameplayers' expectations of what they should be able to do rises.

Cultural forms have been defined by their ability **to get real**. To offer up **a mirror to the world** is a basic human need and desire. Compared to other media, videogames are **not yet real enough**

Take a game such as the justly maligned *Myst*. The 'real' looks of the game contrast sharply with the decidedly unreal, illogical gameplay. *Myst*'s beautifully detailed locations are packed with objects but you can only pick up or use a small number of them.

Faced with a reality that is so palpable the subsequent lack of options is an enormous frustration to many. The more real the world of a videogame appears, the more real we expect it to behave.

But the pursuit of realism is simply the pursuit of a style, not the philosopher's stone that will transform the appreciation or potential of the game.

Whether something seems real depends on many things, most notably what other cultural forms define as real. You need only look at the differences between western and Japanese videogames to realise this. Japanese videogames are conditioned not by film or television but by other cultural forms, namely manga and anime.

There used to be a clear difference between what was accepted as real in



Dreamworks' *Trespasser*, a brave experiment that failed – in trying to make the control systems an experience in itself? Equivalent to a tool set, perhaps? It made the game highly frustrating to play



Le Voyage Dans La Lune Georges Méliès. This famous sequence, from 1902, was composed of 30 tableaux, all statically photographed from the same angle. Like videogames, early cinema such as Méliès' work was still in the thrall of other forms, in this case theatre

British, European and American videogames, with each responding to the influences in their own cultures. The decline of formats such as the ST and the Amiga – which were far more successful in the UK than in America – and the universal adoption of the PC, has led to an increasingly strong American influence on western design.

However it may be defined, realism or the lack of it will continue to be a key issue for videogames until they can match photographs for visual representation and the cinema and television in their illusion of movement.

As a visual medium, it will only be when the question of whether or not something looks real has become irrelevant that designers will be able to turn to more important considerations.

The question for designers remains the same as ever: can we represent this on screen? Only when that has been successfully answered will they be able to turn to a far more intriguing, challenging and harder question: *what* should we represent on screen?

Questions of freedom

How do you interact with a videogame? You use the controls, whether it's a keyboard or a mouse, a pad or a stick. Control is at the heart of the experience. They are all about freedom and control.

Interactive movies – the fad that accompanied the large-scale adoption of CD-ROMs – has failed because players haven't felt sufficiently in control of the proceedings. A conventional, linear narrative hasn't offered much interaction. There weren't enough clicks per minute.

But then there are plenty of games that fail from the other extreme. Two recent examples are Dreamworks' *Trespasser* and DMA Design's *Tanktics*. Both games place more emphasis on their control systems than on what actually happens. Mastering the clumsy magnet in *Tanktics* or the wayward arm in *Trespasser* is as much of a challenge as the gameplay tasks.

Some strategy games offer too much control, like the football management titles that go down to minute details such as individual burger stands.

As videogames with either too little or too much control are consistently rejected by reviewers and most gameplayers, there is clearly a level of control that is acceptable for a mainstream audience.

Again like realism, it is partly a cultural definition. Compare the typical, control-heavy, Dungeons & Dragons-derived adventures popular in the US and Europe with the control-lite, storybook adventures popular in Japan.

That both these traditions of adventures themselves derive from literature and manga, respectively, speaks volumes for the strong ties between videogames and other cultural forms.

Whatever may be accepted as being in control, all controls in videogames serve the same end – to disguise the fixity of the experience. A game offers a set of paths towards a number of possible goals.

Games give the player complete freedom to a do a few things. This is clearest in an old form of videogame, say the 2D shoot 'em up or the text adventure, where interaction is limited to a small number of moves of your onscreen sprite or a small parser of recognisable words.

Giving the player ever more control and new buttons on their controllers has become another fixation in the games sales war. But surely developers are chasing another holy grail. The challenge to developers and designers today remains the same – to create the illusion of freedom in a game that by necessity has a highly determined path.

Both *Trespasser* and *Tanktics* are brave experiments that try but fail to get around the deterministic nature of videogames by making the act of using the controls an experience in itself.

Creating this illusion of freedom successfully depends on the gameplayer making a commitment somewhat akin to the willing suspension of disbelief of the film audience or book reader.

Gameplayers are only willing to suspend their disbelief and accept the part they have to play in the game world when the control experience strikes that right balance between too much and too little.

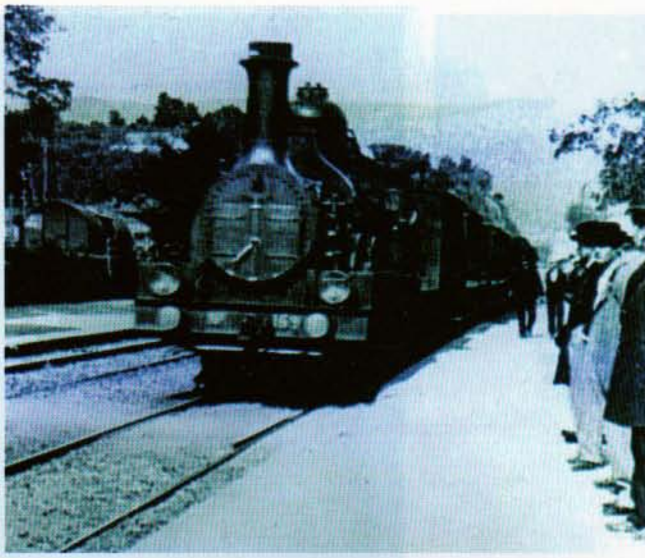
You are always successfully **doing what the game wants**. Possibly **the most fundamental question** confronting videogames is, can **a true work of art** have choice?



Realism, relayed using jittery, handheld camerawork in 'NYPD Blue', is only a convention, no matter what the cultural form



Having a complicated control system, like that of DMA's *Tanktics*, may help disguise the basic fixed nature of a game, but it can also alienate players



Arrival Of A Train The Lumière brothers. Was this film, from 1895, really no more than a photograph that moved? The novelty of these technological showcases soon wore off and cinema audiences were drawn to films that told stories, however simple. Is there a lesson for videogames here?

There have to be enough variables to initially master, then enough new variables to keep them entertained and the control experience fresh. Too many variables and only the obstinate will continue. Too few and it all becomes far too repetitive.

The variables as the game progresses may include new control options – extra moves, new weapons and so on; or they may force the player to use the existing controls in a different way – a faster moving set of *Space Invaders*, a more skillful football side, an icy road, a new monster.

Whatever it is, it must work incrementally, not overloading the player with too large a leap in required ability. The player must be able to progress within a reasonable amount of time, which varies between genres, and reach the next set of even faster *Space Invaders* or an even more skillful football side. This may sound like the player is being railroaded in a calculated manner but this relative lack of freedom is far from being a millstone. It is the essence of the form.

Restrictions are the heart of any form. They are what give it form. A film is a two-hour piece of narrative with dramatic conventions that can be traced back to Aristotle. The hoary theory about there being only seven basic stories is essentially true, as archetypal story characteristics have been identified by scholars from Aristotle onwards.

More modern exponents of this belief, such as Joseph Campbell, whose *The Hero With A Thousand Faces* has become a template for Hollywood screenwriters searching to create modern myths, all seek to identify common elements to stories to find out what makes a great story.

This same principle should be applied to videogames. The key restrictions to gameplay surely have to be defined. Doing this would not compromise experiment or curtail any further development of the videogame.

Form does not have to mean formula. It seems a basic trait of humanity to seek order in cultural forms. From movies to music, from books to sports, we feel the need to classify. This could be to help us predict what experience we are going to get when we buy, see or play an item in a cultural form, or it could be related to a deeper desire to find or invent connections and order in our cultural forms because we can't find the same order in the real world.

> The desire to be known as **interactive entertainment** rather than games reveals videogaming's collective **cultural inferiority complex**. Does it suggest other entertainment is **somehow not interactive?**

Without form, without defining themselves, videogames could face the same fate that art has had since Marcel Duchamp rejected the conventions of form and used found objects as his art.

From then on, art was no longer simply paintings or sculpture, it was whatever the artist deemed it to be – even nothing at all. This has left art in a bizarre situation. Apart from a coterie of artists, critics and the intelligentsia, nobody knows what art is any more.

This has led to a definite divide between the high art of contemporary artists, such as Damien Hirst, Tracey Emin and their peers, which is often widely misunderstood or scorned, and the more common art which most people choose to hang in their homes – anything from family photos, to movie posters, to traditional forms of figurative paintings. It's a case of people not knowing about art but knowing what they like.

What does this mean for videogames? Well, games are already demarcated into quite clearly defined genres, in much the same way as films, television and literature.

But unlike these well established media, videogames are still largely technology-driven and their boundaries are not yet clearly outlined. Just as a technological platform becomes established it is superseded.

This prevents designers from fully exploring its potential or pushing themselves and the limitations of the machine. It's surely no coincidence that many of the best titles for any games machine you care to mention appear relatively late in the machine's evolution. At its launch, no one really knows how far it can be pushed or what limitations there are to react against.

Just as gameplayers need limitations to force them to think creatively and test themselves, so do designers. As long as designers are forced to answer technical questions they will have little time for formal or thematic ones, thus arresting the development of the medium.

Questions of emotion

On its masthead, **Edge** describes videogames as interactive entertainment. Should the word game and all it implies be eschewed? Children's toys, post-dinner party, social icebreakers, pointless competitions – these are what games are.

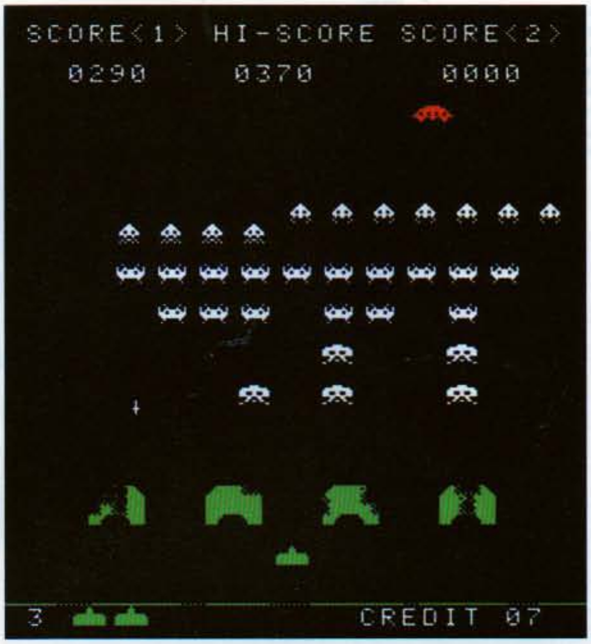
Does the term therefore suggest that other entertainment is somehow not interactive, that people simply sit back and receive films, books, music, art and television shows?

Anyone who has ever cried at a film, felt their spirits moved by a piece of music, laughed at a sitcom or been awed by a work of art is interacting with their entertainment. And in a much more profound way than that provoked by a videogame.

Like the push for ever greater realism, the desire to be known as interactive



The poverty of early game machine graphics meant that abstraction, as in *Pac-Man*, necessarily won over any effort to portay realism



Space Invaders' simplicity reveals the basic symbolic – and therefore not realistic – nature of every single videogame



Is *Pa Rappa's* success down to its abstract nature? By avoiding any notion of what's real, it delivers a far more compelling experience than many more realistic titles

entertainment rather than as games reveals videogaming's collective cultural inferiority complex.

In a videogame the player is responding to visual and occasionally audio cues. A ball moves across the screen, the player moves a footballer towards it. An assassin jumps out from the shadows, the player presses a button and shoots off a rocket.

'Titanic' and countless other films successfully **contemplate themes** such as **love, loss, death**, compromise and failure. As do most cultural forms – look at music, literature, television and art. **Games do not**

These are to a large extent purely physical responses. Emotional response is something far different and, if the whole history of man's cultural forms is anything to go by, something people find far more fulfilling.

Anyone watching a film or reading a book can't concentrate on it if they have to write, answer the phone, tell the children off or try to make the tea.

As videogames expect the player to constantly complete difficult tasks of manual dexterity it is no surprise that games have trouble delivering an emotional resonance at the same time.

The primary interaction when playing a videogame is not between the player and the emotional and spiritual themes of the game, but with the manipulation of onscreen objects. But is this related to the strengths or weaknesses of the stories and themes served up by games or is it more tied to their essential nature as experiences? How do people respond emotionally to a videogame? Just as it is when people watch a film, when they play a game they seek to live vicariously and experience things they otherwise could not have.

Watching a film like 'Titanic' is an exciting experience, with the question 'Will Rose and Jack survive?' playing on your mind.

Playing a game such as *Half-Life* is a similarly exciting experience. Its underlying question is: 'Will you, as Gordon Freeman, survive?' The plot of 'Titanic' is structured as most screenplays are, around rising and falling action. A barrier is placed between Jack and Rose's love. They overcome it, only to face an even greater one.

Half-Life's plot works in the same way, building up to set pieces – such as the gigantic, sound-hunting claws – and incorporating setbacks such as when Gordon is imprisoned and stripped of his weapons. But whereas *Half-Life* can deliver thrills, excitement, shocks and suspense, 'Titanic' does all of this and more – and generates enough tears to sink the ship all over again.

'Titanic' and countless other films successfully contemplate themes such as love, loss, death, compromise and failure which *Half-Life* and every other game does not. And it's not just films that can do this. It's there in almost every cultural form – music, literature, television and art.

But why is this? Is it because the themes and subjects of videogames are still those of its main, young, male demographic? Their chosen diet of action, violence, horror and sport is spread across the films and television shows they watch, the books and magazines they read and the games they play. Or is it because there is something inherent in the nature of videogames that makes it difficult or impossible to explore such themes?

Because videogames are based around physical actions triggering onscreen responses it is easy for them to simulate situations that would require split-second reactions in real life. Leaving aside sport, these are typically life-or-death situations – instances when people are forced to do rather than think.

It is easy, therefore, for videogames to



Atari's *Night Driver* had the simplest of symbolic representations of road and car and yet it still performed in much the same basic way as any of today's contemporary driving simulators



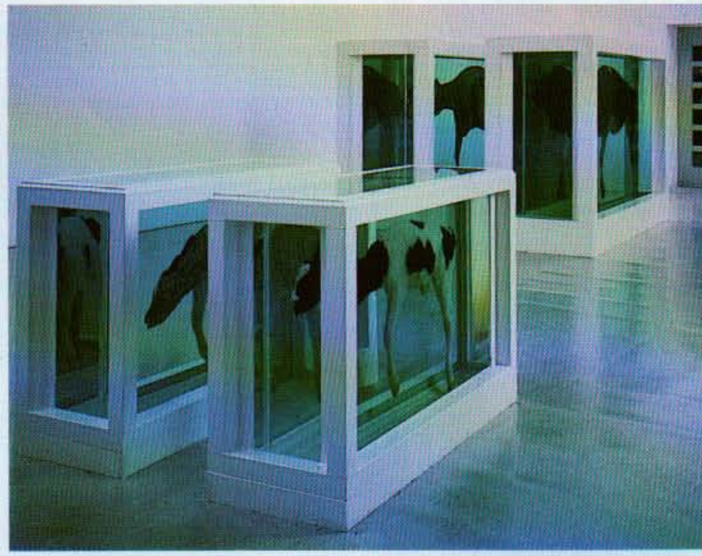
The problem of the reality check: *Myst's* real-looking visuals were let down by the limited nature of its world: players could see all these things – why couldn't they interact with them?





Half-Life may be able to approach the excitement of the average action film, but is it possible for games to tackle different emotional ground?

The motion picture 'Titanic' delivers a far greater range of emotional experiences to its audience than even the best videogame can



Courtesy: Jay Jopling (London)

Mother and Child Divided Damien Hirst. Contemporary art can be whatever the artist wants it to be. But can a cultural form be a mass medium without form?

elicit the same sort of emotions as the average Jean Claude Van Damme movie.

This is not to say videogames are not an important cultural form, but if they are to become a mass medium appealing to a mainstream audience they surely must develop beyond this level.

But the very act of playing rather than watching may be what is curtailing the development of more sophisticated games dealing with different kinds of emotional experiences.

Is it possible to wed negative themes such as failure, compromise or loss to a medium that is entirely based around positive actions – pressing this button, moving this there – to successfully navigate your path?

You can't win a game by losing. The whole point is to carry out actions successfully. And by completing a level, winning a match or defeating an opponent the player has, regardless of what the game narrative might tell them, succeeded.

In this aspect games are, at present, truly amoral in the same way that a jigsaw puzzle is always a jigsaw puzzle, whether its picture is of the most obscene pornography or of the most inspiring landscape. Whether you are blowing away a person or landing a big bass you are successfully doing what the game wants.

This distinction between success and failure reveals more than simply an issue of happy or sad endings. It raises possibly the most fundamental question that videogames have to confront – can a true work of art have choice?

Let's return to the example of the interactive movie. If these novelties weren't taken seriously as games, they weren't even given the time of day by the movie industry – no matter how many well-known actors appeared in them.

Videogames are based around a player completing tasks in order to achieve something. The player can fail or succeed. They can decide to go one way or another. They can win or lose the race. This choice about what happens next is at odds with traditional cultural forms.

Films, novels, short stories, paintings, songs, symphonies, plays and sculptures are all cast. The audience does not change them or have to participate for them to exist. Similarly, the filmmaker, the artist, the musician and the writer all make specific statements in their work.

But is such a thing possible in a cultural form that is based entirely around choice on the part of its consumer?

The delivery method of videogames on a television or monitor, via a CD or DVD, suggests that as a form they have more in common with music, TV, film and other media than they really do.

A videogame demands to be played first and foremost. Any other considerations – themes, morals, messages – are secondary at best.

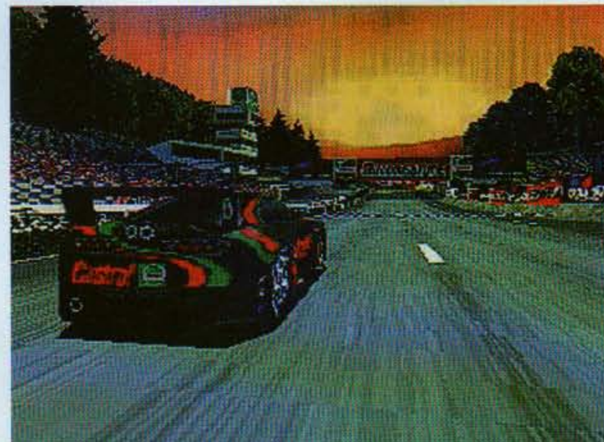
And this would appear to put videogames more on a par with pastimes such as toys on one extreme or sports on the other, rather than with other cultural forms.

And if videogames seek to be more than simply a pastime they must find a way to marry interaction with the whole range of human emotions.

As videogames **expect the player** to constantly complete difficult **tasks of manual dexterity** it is no surprise that games have trouble delivering an **emotional resonance** at the same time



The *Final Fantasy* series is influenced by manga and anime, unlike western RPGs which draw from the D&D legacy. That in turn drew on Tolkien and other literary works



Gran Turismo was a great leap forward for the console driving game – but no matter how 'real' games get, realism will ultimately always remain unattainable

TESTSCREEN

The definitive monthly assessment of the world's latest videogames

Secrets and lives

Entertaining this month's *Donkey Kong 64* and *Rayman 2* may be, but they're also sombre glimpses of an era past, a time developers have abruptly brushed under the mainstream carpet in a market focused around maximising revenue potential. Everything is too orderly now, all too linear.

Very little, if any, lateral thought is allowed into the development process and hence none is required to complete today's platform titles. Sure, there are usually many puzzles to negotiate, but rarely do they involve anything resembling cerebral activity.

Of course, it wasn't always like this. The *Marios* and *Sonics* of yesteryear managed to keep you second guessing through every bitmap of their design. New locations and situations provided myriad exploratory possibilities for anyone prepared to stray off the carefully beaten path. Crucially, though, these games would reward digital adventurers. Those brave enough to venture off screen, drop off platform edges and leap into the unknown would often uncover hidden rooms and other bonuses.

Soon, however, designers keen to diversify their practices were hiding bonus material in the most unfeasible of places. Hardcore gamers, aware that certain developers promised many secrets within their code, would waste innumerable lives trying their best to unearth them. The satisfaction of unveiling a hidden area after careful examination of your surroundings (where subtle clues occasionally resided) remains one of videogaming's defining moments.

But, as ever, progress stepped in and brought with it change. The arrival of a third dimension has affected gameplay elements, of course, but there is more to this than simply the introduction of polygons. Sure, nearly every 3D platformer of the 32bit age has offered hidden rooms and elusive power-ups, but the context within which this is done remains remarkably, and hence disappointingly, safe. There's no pay-off for risking the life of your digital protagonist (chances are there is no concealed platform to break his fall into oblivion anyway), meaning the affair is strikingly unbalanced – too sanitised, too familiar.

Hopefully the new millennium will see developers approach this kind of game from a player's perspective, rather than dragging the current platforming template out of the drawer for another epoch of chastised offerings.

Nintendo, it's up to you to take the lead.





SNES *Super Mario World* (left) and Mega Drive *Sonic* (centre): a time when your sense of adventure was duly rewarded. And *DK64* (right), another product to emerge from Rare's platforming mould

Every issue, **Edge** evaluates the best, most interesting, hyped, innovative or promising games on a scale of ten, where five naturally represents the middle value. A game receiving a 'seven out of ten', for example, is a very competent title with noticeable flaws but which should still appeal to a considerable range of players. It does, after all, score two points above average and should therefore not be considered as such.

Edge's rating system is fair, progressive and balanced. An average game deserves an average mark – not, as many believe, seven out of ten.

Videogames on the **Edge**

This month's polygonal relief



House of the Dead 2 (DC) Sega

Prolonged play has a habit of leaving you numb, but the challenge of the training mode is scarily compulsive. No-brainer gaming at its most fun.



Ocarina of Time (N64) Nintendo

As the sequel edges nearer, Link's first 64bit adventure has been hauled out of **Edge**'s cupboard for a re-run. If only the N64 had more of this quality...



Tony Hawk's Skateb'g (PS) Activision

The controls could have been more refined but rarely has a skateboarding game offered the levels of playability found within Neversoft's Hawk license.



Wetrix (N64) Zed Two

Maybe it's the onset of a rainy autumn but after another graveyard shift, **Edge**'s mindless pleasure has been building lakes and chasing rainbows.

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DONKEY KONG 64



Weapons such as Kong's coconut launcher are vital gameplay components, and form the focal point of the game's mostly successful multiplayer modes





Donkey Kong 64 is awash with splendid coloured lighting. It requires the use of an Expansion Pak, which comes bundled with the game







The SNES *Donkey Kong Country*'s barrel-firing activities are updated in fine form for *DK64* (above). They're often inordinately tricky to get the hang of, though

With *Perfect Dark*'s release having slipped to April 2000 – allowing Rare breathing space to truly finish what is set to be its most accomplished title yet – it falls to *Donkey Kong 64* to give the N64 a yuletide bestseller.

While the playable demos at this year's E3 and ECTS pointed to further refinements in Rare's technical mastery of the N64, the game initially appeared to be a rehash of 1998's accomplished, yet curiously soulless *Banjo Kazooie*.

Thankfully, this is not the case. Although *DK64* shares much with Rare's previous attempt to provide a genre-defining 3D platformer, the game is more rounded and enjoyable, showing the Twycross-based developer inching ever closer to the ideal presented by *Super Mario 64*.

DK64 once again centres on the collection of various objects. Bananas of the golden and regular variety allow access to later levels and bosses. Coins are collected to procure special abilities; coconuts bestow magical powers, and so on.

It's a system that's immediately familiar, but working in tandem with the five-character basis of the game, *DK64* presents a far more complex and lateral repeat of the 3D platformer than has been seen previously.

The five Kongs (Donkey and siblings Diddy, Tiny, Chunky and Lanky) possess, and can attain, a wealth of special abilities. These must be used to gain bananas and the like (and vice versa). Parallel use of available characters is paramount.

Each level contains areas that can only be accessed by certain Kongs, so switching between characters to gain objects and abilities is essential to progress through the game.

DK64, then, is fairly complicated for an N64 title – and colossal. Yet it hangs together beautifully. Rather than opting for sprawling levels, Rare has kept the game's playing fields compact and rammed with activities, keeping tedious backtracking to minimum.

Throw in a hefty stack of mini-games (such as mine-cart races, slot-car speedways, target ranges, herding beavers), Kong-specific weapons, *Zelda*-style musical instruments, jet packs and even the original *Donkey Kong* and *Jet Pac* games (the latter reproduced with a scary degree of authenticity, right down to colour clash and tinny sound effects), and *DK64*





Format: **N64**

Publisher: **Nintendo**

Developer: **Rare**

Price: **£60**

Release: **December 3**









The levels are varied and immaculately detailed. Rather than plumping for vast expanses, Rare has wisely opted for smaller areas that are packed with activities, secret areas and entrances to a variety of mini-games. *Jet Pac* (right) is a hidden bonus

couldn't try harder to impress.

The game is perfectly paced, too. From the training ground introduction and the amount of options available, to the ultimate emphasis on reducing aimless wandering and thus pitching the player headlong into what the game offers, *DK64* is the closest a thirdparty developer has come to emulating Nintendo's supreme understanding of game structure and the value of component parts.



Attention to detail is strong, as this panorama ably attests

***DK64* is a colossal game,** yet it hangs together beautifully. Rather than **opting for sprawling levels,** Rare has kept **the game's playing** fields compact and rammed **with activities**

Admittedly, *DK64* is initially overwhelming in scope. It is hardly original, simply refining what has gone before, and expanding upon it.

The camera, meanwhile, is little improved over *Banjo Kazooie*'s, which is a crime considering how much water has gone under the bridge since Rare's previous platformer.

And THE Games' decision to sell the game for £60, complete with Expansion Pak (which is an essential requirement for the game to run – witness the spectacular coloured lighting and medium-resolution graphics), with no unbundled alternative, seems simply unhinged.

But these faults can't besmirch a game so obviously geared towards offering a thoughtful, intensely engrossing and all-round entertainment-packed experience.

Indeed, this is the nearest any codeshop has come to approaching the heady heights of *Super Mario 64*.

But the fundamental difference between the games of Rare and Nintendo has always concerned imagination, and *DK64* shows that the UK company still trails in this respect. So, ultimately this game does not offer the sheer freedom, flexibility and joy inherent in the plumber's premier 64bit outing. In its own right, however, it's a fine effort.

Edge rating:

Eight out of ten



It's possible to snipe at enemies via a well-implemented firstperson aiming mode, a vital component of the multiplayer 'Kong Bash'

URBAN CHAOS









Though hardly realistic, the radar (situated at the bottom left of the screen) is an essential device. Although *Chaos*'s city areas are not as sprawling as those of the *GTA* games, finding targets could otherwise prove prohibitively difficult



Despite its outward complexity, action is the game's byword



Though Darcy's default pistol has value early on, it is just about useless against well-equipped foes. Finding suitable armaments is often the key later on

As videogames viewed from a thirdperson perspective grow ever more complex, their camera and control mechanics remain barely more complex or considered than those of *Tomb Raider*, now four years old.

Like its growing base of kindred titles, *Urban Chaos* often struggles to provide entirely intuitive control code, or apt view angles to address each ingame event. More often than not, its most challenging moments tend to occur when a player wrestles with the shortcomings of both.

Chaos does not lack scope, depth or detail. Like *Grand Theft Auto*, it presents a semblance of a working city to explore and, like *Syphon Filter*, it allows you to do so in the thirdperson perspective.

Its level-based structure leads you to different areas and events within its virtual city, yet rarely does it prohibit free exploration. *Chaos*'s principle charm is that unprompted expeditions lead to secret events and experimenting with its environments reveals many surprises. The storyline for each stage adds necessary impetus, but remains strictly a narrative pointer.

By eschewing forced, linear progression, *Chaos* makes some progress in the march towards replicating reality in videogames. The player is given a genuine degree of freedom; no one mission need be completed the same way twice.

A typical example would be a mission where Darcy – the player-controlled protagonist – is required to attack a group of specific assailants. She can perform *Final Fight*-style combos, mixing elementary punches and kicks. (During aggressive encounters, control of her switches to a *Zelda*-inspired system, whereby she rotates around a particular target.) But unarmed combat is rather ineffectual against multiple opponents for technical and obvious ingame reasons, so it's often a good idea to find additional weaponry before attacking.

Grasp the required mindset and *Chaos*'s horizons expand. In a hurry to reach a specific area? Shoot at a car and, as its owner flees, commandeer it.

Entrance of a target house guarded by thugs armed with deadly automatic weaponry? Sneak around the back, over rooftops and pick them off one by one. In almost every instance where a players skills are questioned, they are given alternative







Dangerous driving is allowed, rarely offering a penalty more severe than a minute energy loss after a crash. Don't expect *GT2*-style physics

Format: **PC (version tested)/ PlayStation**

Publisher: **Eidos**

Developer: **Mucky Foot**

Price: **£30**

Release: **Out now**





Repetitive textures give a bland appearance at times – then the game springs a varied locale upon the player. Seeing the PlayStation muster this is more impressive

play-based retorts. While far too many other developers clad their design briefs in the straitjacket of cinematic pretensions, *Chaos*, again like *GTA*, makes the player a contributing scriptwriter of sorts. Such freedom is liberating and empowering.

Naturally this PC iteration of *Chaos* has been hamstrung by the parallel development of a PlayStation version. It offers a greater draw distance, higher frame rate and higher resolutions, but at the same time it's easy to perceive that the brief was designed to work within the Sony machine's 2Mb memory.

Ruler-straight streets, Lego-like architecture and repetitive textures, therefore, are just three respects in which *Urban Chaos* fails to utilise the processing power and memory allocations of standard PCs and graphics boards.

It doesn't look bad *per se*, rather it could quite patently be better. But while a PlayStation release remains the de facto cash cow for publishing heavyweights, expecting otherwise would be naive.

The player is given a genuine degree of freedom; no one mission need be completed the same way **twice. Once you have grasped the required mindset,** *Chaos*'s horizons will expand

The irony, perhaps, is that the PlayStation version can offer the one attribute that its more polished PC counterpart so desperately needs – analogue control. There are such pads available for the PC but can you think of a single one that even begins to rival Sony's model?

Played using a keyboard or a Sidewinder (as near as the PC gets to a standard pad), *Chaos* can be uncomfortable to control. It's hard to dispel the suspicion that you spend just as much time fighting against the shortcomings of your pad, the ingame control mechanics, and the game camera than you do against *Chaos*'s many gang members.

The game will not stretch the poly-manipulating prowess of your PC and it will almost certainly engender fits of incoherent rage from those lacking the temperament to cope stoically with its control-based flaws. So why, then, does it still merit much attention? Simply because the enjoyment it delivers does so well in masking its deficiencies.

Another six months or so in development could have been profitably spent on extra, PC-specific detail, a partial overhaul of its clumsy control code and refinement of its camera routines.

As it stands, *Chaos* is a 'nearly there' title, a game whose patent quality will have you wondering, 'What if?' time and again.

Edge rating:

Seven out of ten

THE NOMAD SOUL









Bowie's countenance makes an appearance (top right). Vistas, animation and character models rarely fail to be anything less than remarkable (above)



The voice actors are, as a rule, at least mildly accomplished. It seems the days of abysmal, *Resident Evil*-style dialogue are nearing an end

How different the videogame world would be had Ridley Scott not delivered his grim vision of the future in 'Blade Runner'. A seminal template was set, and from that moment on game designers and artists alike would fall over themselves to pick up on clichés while overlooking the spirit of their ultimate inspiration.

Cynics would argue that apocalyptic veneers and grimy, impersonal locales are popular with codeshops simply because, hey, they're easier to draw.

The modern cityscape is alive with detail and colour, so the gunmetal gloom of *Blade Runner* is a far more approachable goal. There are many works within the sci-fi/fantasy remit that are to be admired. Sadly, a far greater number of derivative efforts exist.

Yes, the darkened locales in Quantic Dream's *The Nomad Soul* are reminiscent of the aforementioned '80s opus, and its predilection with the Big Brother hybrid of technology and dictatorial control is equally familiar.

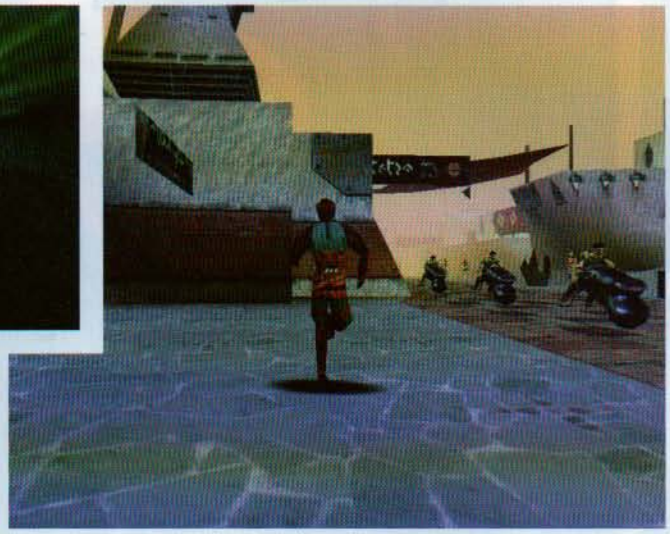
Its triumph, though, is in the nuances that mingle with such narrative staples. Its dialogue is rarely less than solid, and characters are believable. Its architecture and design lend it a distinctive appearance. There is admirable atmosphere and styling. Its creator has certainly absorbed influences, but has in no sense plagiarised.

You are the character within the game. Your soul torn from your body,

Your soul torn from your body, you begin as a **bewildered inhabitant** of a detective's physique **in an alternative reality.** You can transfer **your abstracted being** into the bodies of others **to use their strengths**







Oddly, this area within *Nomad* is reminiscent of *Outcast*. On this evidence, is it any wonder that many developers eschew the use of voxel engines?

Format: **PC**

Publisher: **Eidos**

Developer: **Quantic Dream**

Price: **£30**

Release: **Out now**





A training room, discovered early on, allows players to brush up on combat skills. *Soul Calibur* it isn't. As a sub-game, though, it offers variety

you begin as a bewildered inhabitant of a detective's physique in an alternative reality. By means of linear progression and incidental information and events you learn the nature of your role within this world.

Later circumstances provide the chance to transfer your abstracted being into the bodies of others to use their strengths. Intriguingly, dying during certain action sequences leads to your transfer to the first ingame individual to touch the cooling corpse in which you are trapped.

Although the core of *Nomad*'s action is pure adventure and plot-related discourse, it relies on sub-games to provide immediate drama. Its shoot 'em up sequences lie somewhere between simplistic *Doom* clone and *System Shock 2* in complexity. *Quake III* they most definitely are not. Meanwhile, the occasional, cut-down beat 'em up exchange, with punch and kick exchanges in stilted combos, can be entertaining, but rarely spectacular.

By separating these asides from the main body of gameplay, *Quantic Dream* has made its project remarkably joypad-friendly. Your choices are defined by the nature of the ingame moment. But they represent little more than asides. Sadly, *Nomad* is partly victim to a mature, expansive theme at odds with a medium still in a protracted technological and creative infancy. Leave the comfort of linear tasks and proper progression and *Nomad* is a mess of 'I don't understand,' 'I can't do that,' and 'They look too busy to talk' messages.

Its illusory depth is just that: paper-thin. Prone to clumsiness, the game is artful, polished and yet flawed when viewed as a piece of entertainment software. At times, it appears less than the sum of its many parts; at other junctures so very much more. The mixed feelings it often brings about are a mark of its ambition and quality. Ironically, its attempted scope could be its greatest flaw.

It's unusual to have your critical faculties hurled through such a rollercoaster ride. It can make you wide-eyed and keen of ear, noting the outstanding quality of its soundtrack and spot FX, Bowie-sired tracks and all. To discover that what on the face of it appears little more than a gimmick turns out to be a considerable part of the game's appeal is remarkably refreshing.

But how do you address the awkward nature of player control, or the often scruffy cuts between ingame and on-rails scenes, or any other irksome issue? You grit your teeth and get on with things.

A brave endeavour that falls short of its ambition, *Nomad* nevertheless shows that developer Quantic Dream is one to watch.

Edge rating:

Seven out of ten



Sometimes it's rewarding to leave the game's storyline to hang, and simply enjoy exploring. The environment holds a great deal of interest

GRAND THEFT AUTO 2











Careful refinement of the audio system has created a deeply immersing sound stage. Driving around the different gang zones re-tunes the car radio to each mob's favoured listening

Lighting effects, at least in this PC version of *GTA2*, are liberally splashed around by the game's capable engine

Steeped in enough controversy to sink a police department, DMA Design's original crime sensation, *Grand Theft Auto*, simultaneously rekindled some small, forgotten part of videogaming and fully ignited another that would become more prominent.

Holding a finger aloft in the face of the videogame industry's blind meanderings into the third dimension, *GTA* took the player on a drug-fuelled joyride into the arms of eager censors. And it was only a game.

Second time out (excluding its curious diversion through London circa 1969), *GTA* is a different beast. With its graphic design reined to a darker palette, the tone is set for a moodier lesson in the art of contemporary game making.

GTA2 shuffles its cards like a pro. Complex gameplay elements, interactive audio and realtime lighting all feature in its winning hand.

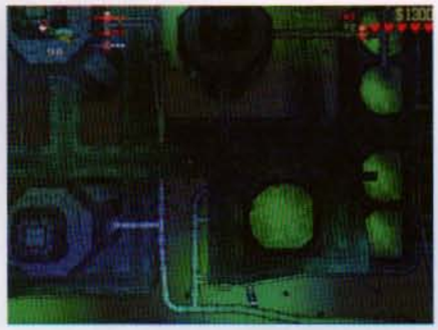
Yet from the moment the game bursts into life none of the above are shoved in the player's face. The visuals are better hued and more detailed, and the lights of emergency vehicles, plus those cast by traffic signals and other static sources, conspire to make it all seem less 2D.

For many of the gameplay elements in *GTA2*, the story development is one of refining those in the original title. DMA's mission was to enhance the sensation of being immersed in an active environment, with other criminals to compete with.

So you see other car-jackers waiting at junctions and the introduction of three rival gangs in each city map, all vying for supremacy. Constant among these is the Zaibatsu, who, above all else it would seem, really should not be messed with.

The addition of these groups is the most significant change to the *GTA* brew, and takes some adjusting to. Now you must garner favour with



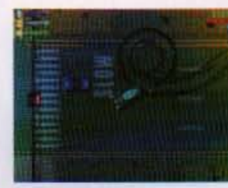


Playing the gangs against one another can result in some fractious moments



Unsurprisingly, compared to its PlayStation sibling, *GTA2* on PC delivers many more cars and pedestrians, significantly adding to the gameplay

Format:	**PC (version tested)/ PlayStation**
Publisher:	**Rockstar Games**
Developer:	**DMA Design**
Price:	**£40**
Release:	**Out now**





As in the first game, multiplayer larks are well catered for. Several scenarios are selectable, with two- to eightplayer versions of each to dabble with

the gangs in order to be offered jobs: the more popular you are, the more challenging, interesting and better rewarded the task. But it's never entirely clear what has to be done to win a gang's approval, other than perform extensive hit-and-run manoeuvres against their rivals.

It is once missions have been collected from telephone boxes placed within each mob's controlled area that *GTA2's* best moments occur.

Some of the tasks are smartly constructed, such as having to run over a pedestrian in order that an ambulance is called, which must then be stolen so that you may retrieve a gang leader from the hospital.

Later missions become yet more inventive, including driving remote-controlled taxis packed with explosives to meet opposing forces, or butchering enough police so that SWAT teams are called in, allowing you to appropriate their armoured van.

The downside to *DMA's* reworking of the mission structure is that it shatters the game's sense of hard-won immersion. Why would any criminal drive right across a city (and *GTA2*'s maps are vast) simply to draw attention to themselves by running over lots of people?

In some ways *GTA2* is caught between the colourful excesses of its predecessor and the more serious overtones of this sequel.

You see other car-jackers waiting at junctions and the introduction of three rival gangs in **each city map, all** vying for supremacy. **Now you must garner favour with** the gangs in order to **be offered jobs**

That it still manages to draw you deep into the complexities of its world, rewarding with ever more imaginative missions, is testament to the fundamental strength of its core gameplay quality.

From a conceptual standpoint, perhaps the most interesting facet of *GTA2* and arguably its greatest triumph is that when cities are completed there is a sense of disappointment that these believable worlds could ever have an end.

If a further instalment in the *GTA* series is to appear – and word is that it will – the challenge to DMA will not be to take its game into the third dimension, but to dispose of any formalised mission structure.

Give the player toys but throw away the instruction manuals. Ask them how criminal, how wealthy, how powerful they want to be.

Finding that answer could prove the wildest ride of all. Promisingly, *GTA2* is a fast cruise in the right direction.

Edge rating:

Eight out of ten



Some of the weaponry is seriously effective for the business of wiping out nagging problems such as SWAT teams

AGE OF EMPIRES 2: AGE OF KINGS









Format: **PC**

Publisher: **Microsoft**

Developer: **Ensemble Studios**

Price: **£35**

Release: **Out now**

The game's timeline encompasses developments in naval warfare and even gunpowder technology

Civilian life is almost as highly developed as the military (right). As well as wonders of the world there is a primitive stock market

Age Of Empires 2 is a brilliantly constructed but unashamedly unoriginal game. Its predecessor was little more than a purified *Warcraft II*, restaged with an antiquities motif. Now in its turn the sequel makes little effort to break with the past.

It's a carefully groomed, risk-free enhancement of a proven formula – the sum of three years of refining an already excellent realtime strategy game. And for once this approach works. The effect is not one of seen-it-all-before routine but of an appreciable advancement in the depth and subtlety of gameplay and improvements on the original in nearly every field.

Visually, *AOE2* resolutely stands by the old school of a battlefield of pixels and a fixed isometric perspective. But the colourful graphics, rendered with vibrant detail, are a pleasure to behold. What's more, their processor-friendly simplicity fosters mass battles with dozens of units per side.

Given the medieval nature of the conflict, such epic spectacle is essential and all the more pleasurable as the units available to the different civilisations have been finely balanced. Every unit maintains a viable niche in the *AOE2* food chain. Stone-hurling catapults must be wheeled in to lay siege to guard towers and keeps. But they're vulnerable to fast cavalry, which is scattered by infantry, which in turn takes heavy punishment from archers, and so on, in a circular tactical battle that keenly tests the player's mental reflexes.

The combat system, in particular, benefits from intelligent revisions. The early rush which mars so many RTS games has been defeated by garrisoning. This simple order tells all units to man towers and keeps. And clad in stone, even feeble peasants have enough firepower to see off low-tech attacks.

Another sound development is the pause mode, which allows orders to be given even when it's engaged, so that the player can regroup mentally. It breaks up play but the effect is a higher degree of tactical sophistication and manoeuvres.

The resource management part of the game has been expanded. Players can now trade goods at market and speculate in stocks to improve their economic position.

Though the many additions undoubtedly make *AOE2* complicated, the new features are carefully introduced so that the player never feels overwhelmed. One of its great achievements is the simplicity with which it presents so much detail.

The five campaigns and 13 civilisations extend life expectancy and reward progress deep into the game. Though *AOE2* lacks brazen innovation, it is remarkable. Unlike Westwood, which seems to believe there is no need to evolve *C&C*'s gameplay, with this title Ensemble has succeeded in delivering a grand encounter.

Edge rating:

Eight out of ten





There are 13 nations in total. Subtle differences in unit types and upgrades create rewarding variations in gameplay for each civilisation

SUPREME SNOWBOARDING

Format: **PC (version tested)/ Dreamcast**

Publisher: **Infogrames**

Developer: **Housemarque**

Price: **£30**

Release: **Out now**





After a little trial and error with the keyboard you should start to pull off some more complex stunts with ease









Graphically, this is easily the current genre leader – some of the environments are particularly beautiful. Despite falling behind Nintendo's supreme *1080° Snowboarding* in gameplay terms, this still offers unusual levels of fun





Crucially for a game of this type, the sensation of height during aerial manoeuvres (top), and speed once back on firm ground (above), is wonderfully established

It's perhaps a testament to Nintendo's game-engineering skills that despite numerous attempts since *1080° Snowboarding* slalomed its way into the cart slot of the N64, no other snow-surfing game has managed to better the big N's often astounding effort, in either visual or gameplay terms.

And *Supreme Snowboarding* succeeds on only one count – Housemarque's polygon frenzy has the beauty contest well and truly sewn up, with clean, crisp landscapes, smoothly animated boarders, and some wonderful lighting. But you'd expect nothing less from the latest 3D card-pushing graphical venture.

The structure is heavily console influenced. Arcade mode offers a choice of single races, where the aim is to reach the bottom of the slope ahead of a quintet of fellow boarders, as well as allowing access to the time attack, half-pipe and air (a three-jump, trick-based competition) options.

Initially, three courses are volunteered. Playing at championship level opens further runs. The championship option consists of three clubs. Competing against nine other snow riders, your task is to finish a season of three races (from which points are attained) among the top three places, before moving up a club. The higher the club, the better the range of equipment available.

Anyone ending the season in fourth to seventh place stays where they are. Boarders finishing eighth to tenth see themselves relegated to the lower club. A similar structure exists for half-pipe and air exhibitions.

Nine courses divided into alpine, forest and village should eventually become available.

Naturally, climatic and daylight variants appear. And this is one particular area where *Supreme* easily claims supremacy over other games of the genre.

Not only does every course boast some two kilometres in length, but an actual area two kilometres squared, too, which you're free to explore at your own leisure – there are no boundaries and no invisible walls. Until now, only *1080°*'s final course had conveyed the feeling of a real mountain slope without forcing you down a predetermined route. *Supreme* does this with all its tracks.

But a snowboarding game is nothing without a repertoire of tricks and this is an area Housemarque hasn't overlooked. All the stunts are performed using combinations of the directional and Alt keys. It's a particularly accessible system, though ultimately not as intuitive as *1080°*'s – perhaps playing it on a Dreamcast joypad (once the version is out) will improve matters.

Importantly, while it doesn't quite match the level of playability offered by the current genre-leading 64bit competitor, *Supreme* has come closer than any other snowboarding title. Which is a considerable achievement in itself.

Edge rating:

Seven out of ten

EDGAR TORRONTERAS' EXTREME BIKER







The sense of speed is wonderfully achieved. Leaping high into the air has rarely been so much fun. In keeping with the game's overall arcade-like nature, all of the courses feature hidden elements for the overly curious

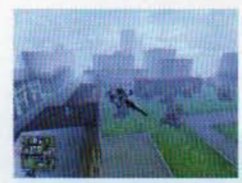
Format: **PC**

Publisher: **Sierra**

Developer: **Deibus Studios**

Price: **£30**

Release: **Out now**





There is much diversity to be found within the game's many courses. Ice, snow, mud, dirt and Tarmac surfaces all feature at various points

There's something compelling about a game that allows you to negotiate gaping canyon scenery while sat astride an off-road bike. It has that perfect 'one more go' factor. This is something *Extreme Biker* offers in abundance.

Developer Deibus has implemented a gradual introduction into *Edgar Torronteras'* gravity-defying world – aware that newcomers may find the combination of the handling dynamics (which are mostly thoroughly realistic) and the ability to perform stunts (which are mostly exceptionally unrealistic) a little daunting. The skill level selected determines the amount of freedom of movement the bike enjoys midair, hence restraining the ability to pull off some of the more outrageous aerial manoeuvres available.

The bike enjoys three axes of rotational movement. It's a system that works well without feeling overly restrictive. You can progress to the momentum-laden 'extreme' option with surprising ease (though the 'auto land' feature is best switched off immediately as its intrusive nature has a habit of interfering with your carefully planned landing angle).

The stunt element of proceedings is equally well balanced. After the initially required adaptation period you should be able to perform some of the harder moves with unexpected confidence.

In addition to the three types of bikes (125, 250 and 500cc), a custom option exists where the agility, acceleration, speed and power values of the motorcycle can be altered by allocating bike points. These are calculated as a fraction of the overall score from the main game.

It provides plenty of incentive to continue playing through the courses. These are divided into the arcade-like abandon of the motocross class, the more serious indoor supercross, and the open environments of freestyle. In total, 23 tracks are available, with a couple more promised as bonus extras. Most can also be found in the game's tournament option.

It all gels together to offer some hugely enjoyable moments which are ultimately only slightly marred by the unshakeable sensation that your bike spends a lot of its time floating above the ground (that perennial problem of so many racers) and some occasionally questionable AI from the CPU-controlled bikers. This can induce higher than normal frustration levels from having lost position as a result of their erratic on-track behaviour. But most of the time this offers great, if undemanding, recreation.

Edge rating:

Seven out of ten



Despite featuring tracks, you're free to go off and explore the looping environment. As would be expected, replay options are extensive

SOUL FIGHTER

Format: **Dreamcast**

Publisher: **Piggyback/ Mindscape**

Developer: **Toca**

Price: **£40**

Release: **November**











The character animation is admittedly very fine, but the design remains derivative. A few interesting creature designs would have spiced up the action



***Soul Fighter* is an attempt to bring back the glorious days of *Double Dragon* and its ilk, but a lack of genuine innovation hampers it**

The mid to late '90s have seen several attempts to reanimate the old scrolling beat 'em up genre (once popularised by *Double Dragon*) in 3D. Some, like Sega's *SpikeOut* and *Zombie Revenge*, have been rather good, but most have lacked sparkle. And despite showing plenty of promise when **Edge** last saw it (**E**73), this scrappy, unimaginative effort falls headlong into the latter category.

Soul Fighter is a 3D swords 'n' sorcery slasher in which you wander through six more or less linear levels fighting creatures and picking up health bonuses and weapons. There's the odd end-of-level boss to defeat here and there, and a few quite bewilderingly awful cut scenes to view, but that's about it.

There's nothing wrong with simple games so long as they're well engineered and manage to maintain interest. *Soul fighter* isn't and doesn't. The story is overly protracted and dull. The enemies are a limp bunch of D&D clichés. Making progress is simply a case of wildly hitting the kick, punch and 'use weapon' buttons. There's little grace here – although it is actually more difficult than it may sound because of an unintuitive control system and erratic camera.

Once you've explored a couple of levels, bashing baddies and checking treasure chests for powerups, there is little compulsion to go on. Yes, the animation is accomplished, and the backgrounds proficient, but there are no strong ideas, no changes in tempo or mood, no impressive new weapons or impressive new creatures.

The fact that you can't save your position, even between stages, further frustrates. Perhaps it's an attempt to replicate the intensity of old-school arcade gaming – the game was initially conceived as a coin-op, after all. But most console owners simply will not be spurned on by the experience in order to complete a whole game in one sitting.

DC owners desperate for a scrolling beat 'em up may be tempted by this, but they really should hold out for *Zombie Revenge* instead.

Edge rating:

Three out of ten





The graphics are colourful, the effects impressively dramatic, but this does little to disguise *Soul Fighter*'s archaic and unfocused gameplay

TUROK: RAGE WARS



Rage Wars **presents a much wider variety of enemy than its two prequels. Many familiar favourites return, however, including the good old Raptor**



Format: **N64**

Publisher: **Acclaim**

Developer: **Iguana**

Price: **£40**

Release: **Out now**



Rage Wars' **capture-the-flag mode is enjoyable and – perhaps inevitably – almost reaches the excitement levels evident in PC titles of this nature**

The *Turok* series, despite comprising a mere two titles, has a deserved reputation for increasingly impressive performances on the humble N64. This latest instalment fails to represent the quantum leap forward in graphical excellence that marked its prequels, but pushes forward in a more important way.

As the first deathmatch-only firstperson shoot 'em up on a console, *Turok: Rage Wars* is a swift and surprisingly successful answer to the growing ranks of similarly styled PC titles.

While *Rage Wars'* deathmatch-based play is reliant on *Turok 2*'s game engine, Iguana has tackled the multitude of problems that marked the former title's slow, uninspiring multiplayer game. Aiming has been made a great deal easier, player movement is faster, and the arenas (despite still looking drab) are more exciting to play than *Turok 2*'s minuscule, ladder-filled mazes.

Sensibly, each of the four varieties of deathmatch (straight bloodlust, team deathmatch, capture-the-flag and frag tag) possess their own, specially tailored arenas, ensuring that no game style suffers from an ill-suited environment.

In singleplayer, *Rage Wars* is enjoyably frenetic. Deathmatch levels culminate in a final boss battle featuring up to three computer-controlled bots and extra weapons and characters as rewards for success. As the first non-human opponents in a console-based deathmatch game, the bots are remarkably effective. This is often due to sheer brute force, not tactical strength, but they prove a worthy replacement for human players.

It takes time for *Rage Wars* to serve up a suitably meaty challenge where the bots are no longer starved of weaponry and seeing them off is more than a mere formality, but when that time comes, play is a pleasing challenge. For a few hours. Then it becomes clear that more than one controller is needed to fully appreciate the game.

In multiplayer, the game truly comes alive. The speed of play, well-defined arenas and multitude of weapons rank it near the likes of *Quake II* and *GoldenEye*. The icon-led weapon wheel, meanwhile, makes switching between guns second nature.

The arsenal range of each player creates joyously unpredictable killing sprees. With weapons such as the brutal Chest Burster (which injects an alien embryo into an opposition player, leading to a Giger-style chest-bursting seconds later), Iguana's destruction-obsessed design team has once again surpassed itself.

The oneplayer game acts as little more than a limited training ground for the multiplayer version, so it's questionable whether the price is justified. And it's hardly the first N64 game to boast an excellent multiplayer mode (see *Mario Kart* and *GoldenEye*). But for those who can lay claim to at least one friend, it will be a worthwhile purchase.

Edge rating:

Seven out of ten





Some found *Turok 2*'s wildly spinning sights unwelcome. *Rage Wars* presents improved controls and more consistent framerates for easier aiming

BAKURETSU MUTEKI BANGAIOH

Format: **Nintendo 64**

Publisher: **ESP**

Developer: **Treasure**

Price: **£35**

Release: **Out now**



Fruit salad, anyone? There are plenty of offer throughout the nostalgia trip surrealistically entitled *The Exploding With Energy Invincible Bangaioh*





Back to the old score yard: retro-style timed levels alternate between puzzles, mazes and open field blast-outs. The screen is rarely quiet







Early missions are easy pickings, but you face manic action once you begin to progress through the levels

As a videogame pickup, the humble item of fruit has been sorely neglected in recent years. What was once the score bonus of choice in games like *Pac-Man* has fallen from grace in favour of the now fashionable gems and coins.

Whether or not maverick Japanese developer Treasure's plundering of old genres is what fostered the opinion that it was time for an orange and pineapple pickup revival, it has definitely had its head buried in the history books for its latest retro offering: *The Exploding With Energy Invincible Bangaioh*. (Even the game's surreal protagonists are known as the Cosmo Gang.)

Looking like the bastard offspring of Masaya's *SNES* mecha shooter *Assault Suits Valken* and Thalamus' C64 puzzle blast *Hunter's Moon*, the objective of *Bangaioh*'s numerous levels is remarkably straightforward: get the titular mecha through each timed level and face whatever boss awaits you.

Tactically, you can either go the high score route, demolishing the buildings clinging to every surface (the score counter resets after each round) and collect yourself a fruit salad, or merely make a dash to the finish.

The resulting action can only be described as manic as the screen fills with enemies, hordes of trailing missiles, explosions and shrapnel.

Initially it may be hard to identify *Bangaioh*'s appeal. The early missions are so easy that they seem over before they've begun. The graphics are incredibly spartan, the character graphics tiny. Even the silky smooth multidirectional scrolling backdrop is not new to those raised on a diet of 8bit Andrew Braybrook, and is limited to a mere two layers of parallax.

Only when the levels start to diversify and alternate between puzzles, mazes and open field blast-outs does the game really come alive. Then the realisation sets in: the only thing between success and failure is the player's prowess with the Bangaioh's controls.

There are no upgrades to the craft. Even powerups bar the ability to fire off a smart bomb-style multi-missile attack. Only a switch between two versions, sporting homing and bouncing projectiles respectively, offers any respite.

Limited to a 10,000-cartridge run in Japan, Treasure has once again shown that an utter disregard for gaming trends can still reap rewards. *Bangaioh*'s storyline may be packed with more Japanese nonsense than normal but it does put up a pretty good defence for the argument that the old days of gaming were better.

Despite its obvious limitations, then, this comes highly recommended to those who still hanker after their monthly copy of *Personal Computer Games*.

Edge rating:

Seven out of ten

RAYMAN 2: THE GREAT ESCAPE






Despite its blatantly lightweight visual leanings, some of *Rayman 2*'s gameplay is fierce. But the mix of styles is hugely endearing, showing real imagination

Format: **N64 (version tested)/PC/PS/DC**

Publisher: **Ubi Soft**

Developer: **In-house**

Price: **£40**

Release: **Out now**






***Rayman 2*'s expansive environments are beautifully realised throughout, although progression can occasionally get a little too linear for comfort**

Arriving a fraction too late to be included in last month's Testscreens, the second instalment of Ubi Soft's million-selling franchise has made it to the outside world – after almost 36 months in the making.

It's difficult to imagine true Mario fans getting genuine fulfilment from platformers featuring anything but the familiar Italian plumber and Miyamoto's unique expert touch (and that includes *Donkey Kong 64*, reviewed on p74), but if you're part of the crowd that cannot wait until Nintendo releases the next Mario adventure, this is at least one of the better intermittent clones. And unlike many of its counterparts, *Rayman 2* can actually claim to possess one or two ideas of its own.



Adopting a mixture of fixed point and roaming structure, *Rayman 2*'s 3D camera works better than most other developers' attempts to date

It's not the most finely balanced of examples, however. Along with the occasionally interesting and novel take on puzzles are the usual disappearing platforms, narrow ledges and other such platforming clichés which, when combined with the developer's insistence that you restart every section from the beginning should Rayman fall into deadly liquid or be hit by some nasty entity mid-progress, can turn the proceedings into something more than a little frustrating. Fortunately, this doesn't happen often enough to sabotage gameplay.

In addition to the occasionally refreshing new touches throughout the colourful landscapes there is a real solidity to the action. Even without the use of an Expansion Pak, much of *Rayman 2*'s world is convincing. The superior responsiveness from the controls is equally satisfying. True, at times certain elements feel unpleasantly linear but as a decently paced, Mario-inspired platformer for the younger gamer it serves its purpose surprisingly well.

Edge rating:

Seven out of ten

CRASH TEAM RACING

Format: **PlayStation**

Publisher: **SCEE**

Developer: **Naughty Dog**

Price: **£40**

Release: **Out now**









***CTR*'s world is divided into four areas, all of which offer four races and a boss challenge event (above). Presumably afraid of shocking the gaming community, Naughty Dog has included a clichéd environment selection**





Elements from past *Crash* games make for unoriginal weaponry (top) but fourplayer games are good fun

Given that *Mario Kart* came out on a 16bit system eight years ago, it's nothing short of amazing that it's taken developers so long to ape the concept on a 32bit machine, particularly as there have since been two 64bit reminders of the potential available within a cartoon-style, kart-based environment (Nintendo's *Mario Kart* N64 update and Rare's *Diddy Kong Racing*).

After the unashamedly *Mario Kart/DKR* rip-off *Speed Freaks*, *CTR* is the second PlayStation game of this ilk to arrive in the latter half of the year (it wouldn't be Christmas without a Crash-themed game, would it?).

Unlike the former, *CTR* includes a few elements of its own. Not that *CTR* is immune to any accusations of mimicry – the weapon pickups and turbo pads dotted around the various tracks look like they're straight out of *Mario Kart*, as is the arcade mode's *CTR* cup structure. Similarly, the four-world hub arrangement (each comprising four heats followed by a boss race) and item acquisition seen in the adventure game is real *DKR* territory.

But by being a *Crash* game, *CTR* allows Naughty Dog to introduce some of its trademark Bandicoot design facets. While beating the opponents and collecting cups from races should ensure able players finish in a matter of hours, true completion requires you to return to every track for a series of challenges. This could mean collecting crystals before a timer runs out or gathering the letters *CTR* while still finishing ahead of your seven opponents, for instance.

The importance of these extra tasks (which reward you with relics and *CTR* tokens) won't escape anyone with the admirable determination to fully beat the game. The multiplayer battle and racing options (again previously seen in *Mario Kart* and *DKR*) do much to extend the game's longevity. These prove rather addictive additions to the already well-rounded package and add to the PlayStation's growing catalogue of fourplayer-compatible titles.

Admittedly, there is little here that can genuinely claim to shock through pure innovation. For those unfamiliar with either *Mario Kart* or *Diddy Kong Racing*, *CTR* represents a skilfully executed and satisfying departure from realism-locked racing. Others, however, may well prefer to dig out the two superior titles behind Naughty Dog's inspiration.

Edge rating:

Seven out of ten

d e v e l o p videogame creation under the microscope

From track to console: how cooperation is advancing today's racing titles

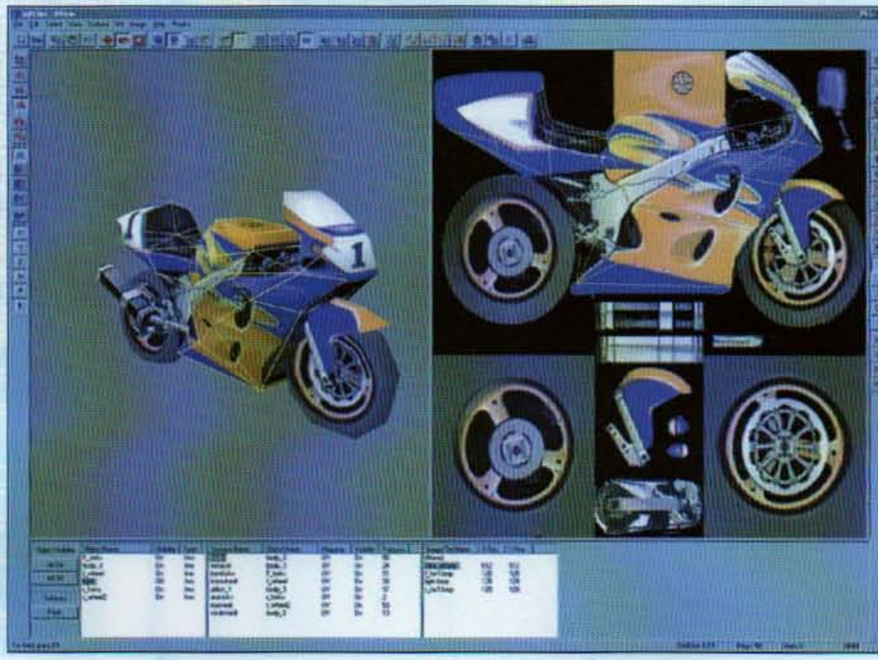
As technology in the home becomes more capable, game complexity naturally rises in tandem. With this in mind, it's no surprise to discover just how far Criterion Software was able to push itself in developing *Suzuki Alstare Extreme Racing*, its Dreamcast superbiking title.

Rarely has developer and licensee worked so closely together. But the team's initial trip to Brands Hatch brought considerable nervousness. How would the racing team treat a small group of game developers? "I thought they would just push us out of the way as these people who were building this game," remembers producer **Shawnee Sequeira**. But in fact the team had a lot of time for the developer, spending the day in the pits and sharing a vast amount of privileged information. Every detail of the bikes' setup was made available and enthusiasm came from both sides.

Once the main elements of the game were in place, Criterion went back to Brands Hatch in order to get feedback from the actual riders. And members of the Suzuki team were very pleased with what they saw. Their reaction to the handling of the bikes was particularly positive – although this was perhaps unsurprising considering these elements were set up almost identically to the bikes that the riders themselves were in the habit of taking out on to the real tracks. Most of the feedback, in fact, related to the way Criterion had modelled the riders: feet were being put down too early on stopping and heads were ducking too early upon accelerating – aspects that were easily addressed.

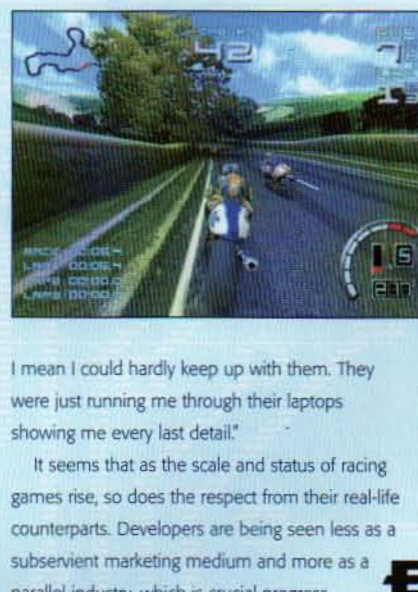
Criterion's artists were pleasantly surprised by the amount of information available to them. They used schematics, measured drawings, photos, videos and slide references with detailed measurements of every part of each bike. They even had access to Suzuki's official font for the numbering of each rider.

The lead programmer, **Alex Fri**, also enjoyed a wealth of material. And being a bike fan, he also found personal interest in it: "From the telemetry data certain surprising things made themselves clear, which we could actually use in the game. Like when you look at the throttle graph. You'd expect an average amount on the corners, and you wouldn't expect it to be all on or all off, but it is. You're either nailing it, or gently rolling into a corner, but very rarely in between."



Suzuki gave Criterion an extraordinary amount of data. Given precise measurements for all bike parts, artists were able to create exquisite models (above)

Forty parameters shaped the handling of each bike, including weight, mass and moment of inertia for the wheels. Nearly all were fed in from pure Suzuki data, although there were restrictions in the process, as Fri relates: "We couldn't actually take every single figure home because they've got a proprietary software system that we couldn't run here, but we had graphs, we could see data, we could take notes, and their pit crew were amazing. I mean I could hardly keep up with them. They were just running me through their laptops showing me every last detail."



It seems that as the scale and status of racing games rise, so does the respect from their real-life counterparts. Developers are being seen less as a subservient marketing medium and more as a parallel industry, which is crucial progress. ∎







Keeping *Suzuki Alstare* ticking over at Criterion (from left): lead programmer Alex Fri, designer Adrian Moore, and lead artist and track designer Mike Williamson

The trials of a start-up developer: part 17



After co-founding Lionhead Studios with Peter Molyneux, **Demis Hassabis** set up his own development house, Elixir Studios. In the latest instalment of his exclusive diary, he reveals how *Republic: The Revolution*, star of **Edge's** cover last month, was conceived

Believe in your idea

Alfred Hitchcock once said, "There are three things that make a great film – a good script, a good script and a good script." This is also true of games. At the heart of every great game is a great game idea. I have this quote written on my PC, to remind me that no matter how cool your technology is, it's never an end in itself.

Technology enables gameplay. Every game Elixir ever makes will remain true to this belief. Having kept quiet about *Republic: The Revolution* for the last year, I can finally talk about it. You can decide if I've been true to this vision.

I first thought of the game five years ago. I was at college and, as students do, I was enjoying another one of those lazy afternoons spent talking and drinking coffee. I was playing an obscure boardgame based on a power struggle within a banana republic.

The TV and newspapers were full of powerful images of Russia's invasion of Chechnya. It prompted memories of reading about the attempted coup in Russia and realising how insignificant the man on the street is. Then I began to ask myself about the people who make history and shape the courses of our lives. Who are they? How do they become what they are? What really happens behind the scenes? I then read a short story in Will Self's *Grey Matter*, which has as its premise the idea that everyone in London is really a follower of one of eight people, whether they know it or not. The story was absurd, but very cool.

Over the next few weeks an idea began to crystallise in my mind. When I think of a game it always starts as an idea like this. I let it sit in my head for a few weeks and it evolves. I always try to boil down an idea into something that's called a 'high concept' in the film industry. It's ugly terminology, but it's an essential idea I apply to design.

A high concept is basically a game or a film explained in a single sentence. If you can't explain why it's going to be cool in a sentence, don't expect anyone else to understand what you're on about.

Republic: The Revolution, then, is a game in which you're a powerful faction leader and you must oust the president of the Republic – by any means.

The next stage is the most important. Explain the game to people you respect and see if they like it. This can be painful. I'm sure even Shigeru Miyamoto has had game ideas that didn't cut it. You need the opinion of sharp people who aren't afraid to tell you the truth because everyone thinks they can design games. I was once driven from London to Guildford by a taxi driver who was convinced he had the gaming equivalent of the alchemist's stone. He was making a mechanised tabletop golf game in his garage and wanted to make it into a computer game. *Sim Garage Golf* anyone?

Another example of this can be found in the new 'Star Wars' film. I found myself cringing every time Jar Jar Binks appeared. George Lucas, no doubt, thought he was creating C3PO of the '90s – a kooky yet endearingly crap alien hero. I'm sure he thought it was a creative tour de force.

What he really could have done with was someone to say to him: "George, this is a crap idea." Or even better: "George, I think it would be great if Maul chops Binks' head off with a light sabre in scene two." Throw your idea to the wolves and see what happens. There are lots of ideas. Be sure that yours is exceptional.

"To do this game would require a quantum leap in AI and graphics technology. What was the point if you couldn't create the entire country and populate it with thousands of real, breathing people?"

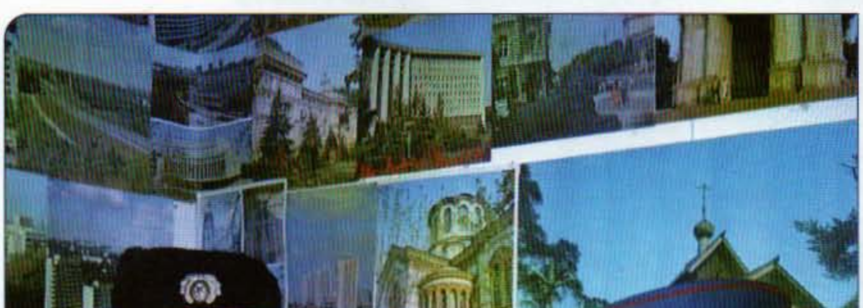
I took trusted friends and explained the game to them. They loved it. But could it be done? Simply put, no. Not then, anyway. What I had in mind was light years ahead of the available technology. To do this game properly would require a quantum leap in AI and graphics technology. What was the point if you couldn't create the entire country and populate it with thousands of real, breathing people?

I didn't want people to be abstract black dots, wandering randomly across the player's screen. I wanted husbands, students, housewives and drunks, each living separate, plausible lives. It had to be done in 3D to do the world justice. I was dreaming. I filed the idea in the back of my mind. It just couldn't be done. Not at that point, at least.

A year and a half ago I finally got the chance to make this game. I found an engine programmer, Tim Clarke, capable of creating the infinite polygon engine. We've called it Totality. With this technology we could model an entire country in 3D, down to moss in the cracks in the pavement.

Dave and I formulated an artificial intelligence technique that would allow us to have a million people in our world (hitherto a couple of thousand had been the limit). Most importantly, we had the chance to do it. How many developers have the chance to make an original game?

A game takes two life-sapping, monastic years to make. When you're at the start it can be daunting, which is why you must be sure of two things. One, your game idea must be good. Two, you must believe in it. And that's the easy bit. Making it happen, that's a different story altogether…



Hassabis drew upon a vast range of influences, but the opinions of others were more vital elements

The trials of a rock'n'roll games publisher: part seven

In the concluding part of Rockstar Games' development diary, Gary Penn, creative manager at DMA Design, the codeshop which actually pushes the buttons, takes the stage in order to ruminate over the future of the *Grand Theft Auto* concept now that part two is out there causing trouble

Two years of insular endeavour later and… is that it? It 's all over, as if it never happened, and now there 's a void to be filled.

But first, a celebratory orgy of debauchery to compare with that in *GTA2* – only in the form of an evening of intense, unabashed machismo climaxing with vomiting and violence… and followed by a well-earned break for the team.

The outside world has got its hands on the showcase and the real thing and the opinions are flying thick and fast, almost all of them appreciative. But there's no time to stand still – we still have to consider the shape of things to come.

Before we move on and archive the enormous amount of data generated during development it's important to conduct a post mortem to review what we did and identify what lessons can be learned.

Trawling through the project's lifetime is revealing – particularly when it comes to realising how much went into *GTA2* and how much didn't. Some features were discarded because they adversely affected the flow of play. A built-in map, for example, has a tendency to remove focus from the playfield and undermine the atmosphere.

Some were left out because they took too long (such as detailed jobs and challenging bonuses), others because they were considered too high a risk to implement before we started development (going inside buildings, for example, was felt to add too little for far too much work) or while development was underway (such as making audible 30,000 words of text which tended to change with every new twist during play testing) or were simply too dull in the cold light of play.

"Research is underway to assess the technical and creative implications of a suitable environment for hundreds of players – working title: *Crimeworld*"

GTA2 is as deceptive as its precursor. The amount of effort involved to make it happen is often underestimated by anyone who hasn't worked on it – particularly by mechanics who scoff at the seemingly simple technology used to bring to life little people, box vehicles and buildings.

There are so many little parts to be manufactured and managed individually and interactively. The sum is a vast whole with an appropriate scope for error. Creating and maintaining the illusion of a living, breathing city is one thing; allowing people to play with it, interfere with and exploit its flow and catering for all those individual play styles and cheeky and sneaky ways to play… It's controlled chaos.

Every new feature introduced tends to have an effect on every other established feature and the collective balance. We have to accommodate every conceivable incidental and instigated outcome. But often we have no idea how it might happen or how different players might make it happen.

GTA works on many levels and embraces most of the time-honoured game styles. There's the sense of a so-called god sim in a simple city simulation, with a pointer in the form of an action figure capable of disrupting the flow and initiating compound interaction.

There are layers of cause and effect. There's the sense of adventure – adopting a multitude of roles (such as driver, courier, thief, assassin and serial killer) and taking on a variety of jobs linked by a loose narrative.

There's the underlying structure of pinball, except the ball is an action figure (and a multiball feature represented by a miniature gang) knocking down targets – people and vehicles. There is the recognition and reward of complex interaction with special bonuses and the supposedly old-fashioned notion of points (cash).

There's a diversity of action encompassing running, jumping, shooting, racing, chasing and wholesale destruction on foot and in dozens of vehicles. The result is a compendium of naughtiness wider than it is deep. With *GTA* there's transgression – doing all those things that cannot be done in real life without facing severe reprimand. The theme and content are undeniably satisfying to the extreme.

Even without considering the sheer number of city-based games in development, it's clear that the dramatic simulation of a city environment provides enormous potential for exploitation, particularly the development of characters, stories, player roles and complex interaction.

It's also clear that even though no one else is doing it quite like DMA that's no reason to get complacent. Research is underway to assess the technical and creative implications of a suitable environment for hundreds of players – working title: *Crimeworld*.

We also have a full 3D city up and running but, as we discovered when we built a relatively simplistic 3D prototype during the development of *GTA*, there are a great many new variables to address – for example the use of the camera, particularly when it's controlled by the player.

GTA just doesn't feel right when the camera angle is subjective (firstperson) or point of view (just above and behind the player toy) instead of objective (the familiar bird's-eye view) – probably because a closer camera offers less emphasis on the whole environment.

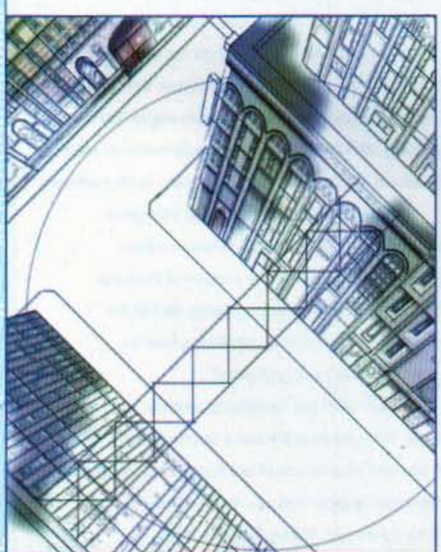
A thick layer of implication is lost when you get down to street level and see the whites of their eyes. The violence is all the more obvious which is inevitably going to raise all manner of issues with our moral guardians.

Being closer to the toy set also calls for increased aesthetic detail which will invariably leave us with less time to exploit the toy set and rules.

GTA doesn't play so well without the objective view. It's difficult to appreciate the bustle of city life and the results of the compound interaction all around (particularly the scale of the havoc in your wake). It's impossible to see what's behind you when being chased forwards or backwards (in a vehicle or on foot, guns ablazing).

On the face of it there are no benefits to repositioning the camera – yet there's increasing pressure from all angles to reconsider, to move away from what works because it's occasionally considered technologically inadequate.

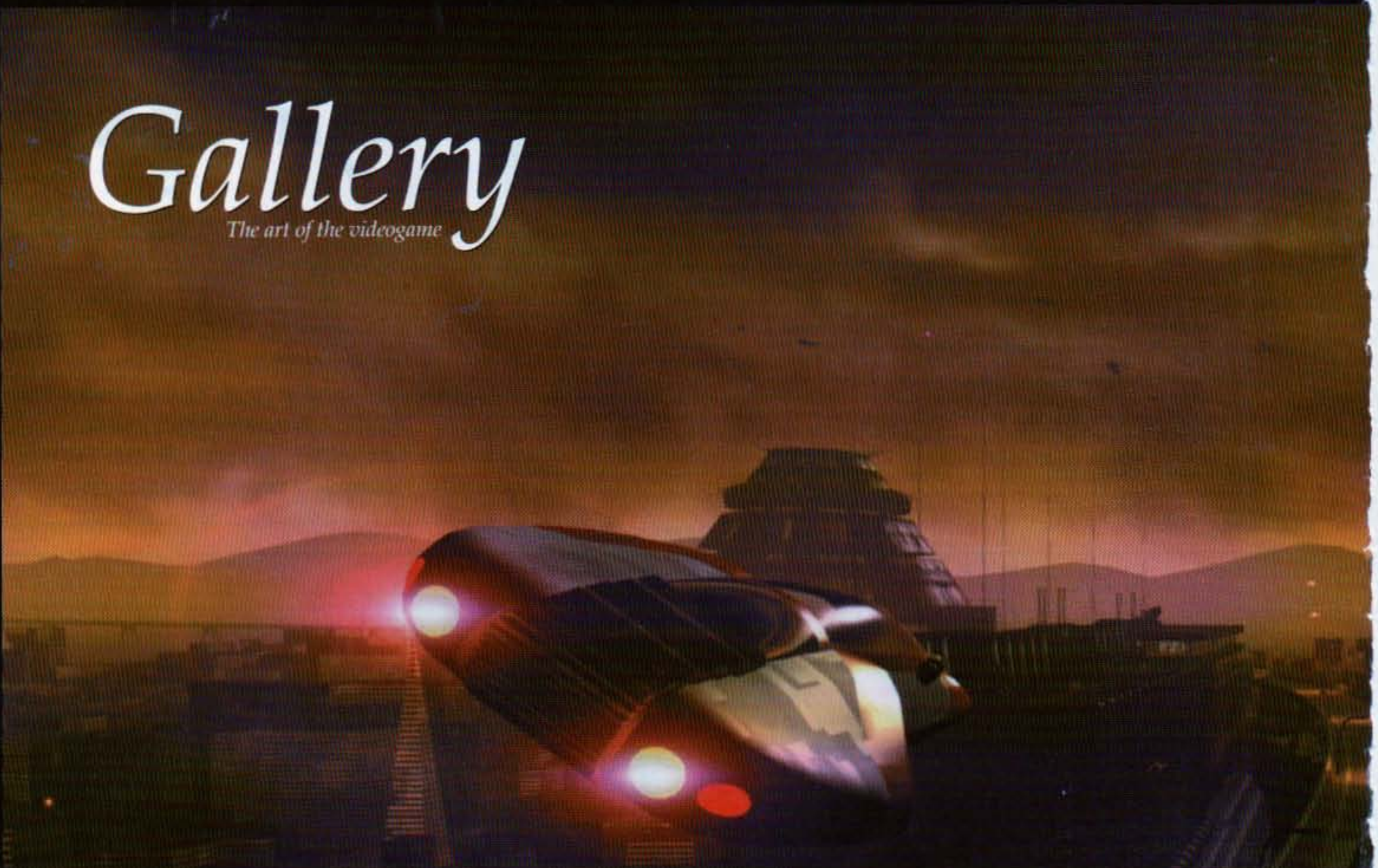
We haven't made a decision one way or another but fans of *GTA* can rest assured that playability will dictate the outcome.



Just one of the viewpoints DMA has looked into for *GTA*

Gallery

The art of the videogame

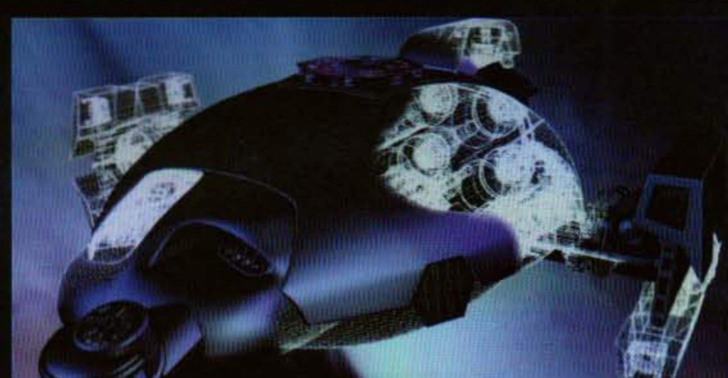












Reviewed back in **E**52, and receiving a credible eight out of ten, *I-War* never quite captured the British imagination, although it was favourably received across the pond. It remains popular enough, though, to warrant a special edition bundle offering the complete game with 18 new levels, more detailed information about the *I-War* universe, and the option to fight through the whole lot as one of the Indies, the enemy from the original game. The package is on the shelves now as *Independence War: Defiance*. This update takes full advantage of the prodigious increase in graphical power offered by today's PCs, adding 3D card support to complement the already impressive visuals.

Images rendered by **Matt Clark**, **Michael Todd** and **Andy Turner** using Newtek's *Lightwave 5.0* and Particle Systems' own *Renderfarm* software.



Head of ambitious but diminutive development studio Vivid Image, Mevlut Dinc has enjoyed success and suffered failure during the 15 years he's been making games. Now, he's looking to the movies...

It was a twist of fate that sidetracked **Mevlut Dinc** from his intended career path and led him to where he is today. He came to Britain from his native Turkey in 1979 intending to take a masters degree in economic planning.

Government policy at the time conspired to focus Dinc in a different direction. Within six years he was carving a name as a pioneering computer game programmer. His first solo title was *Gerry The Germ Goes Body Poppin'*, a cult hit on the Sinclair Spectrum.

He soon developed the groundbreaking *Prodigy*, the first proper scrolling isometric 3D game. The *First Samurai* and *Street Racer* series cemented the reputation of Vivid Image, his Harrow-based development studio, as a byword for quality games.

In recent years Dinc has been beset with business and creative difficulties, with a critical

Photography: Jude Edginton



mauling for last year's PC, PlayStation and N64 racer, *SCARS*. The problems came to a head in August this year, with the crushing decision from Eidos, Dinc's contracted publisher, to cancel Vivid's *Street Racer 2* project months into development.

Edge caught Dinc in a reflective mood as he began work on what may be his most important game to date.

Edge: Looking back, how did you get started in the games industry?

Mev Dinc: While I was learning English at college, in Southampton, I used to work as a cable operator making communication cables. Any spare time I had was spent playing cards in the canteen, which is where I met my very good friend Veno Dos Santos, who was instrumental in my career change. Veno had a ZX81 and he would keep on about how wonderful it was and how I should consider getting one. But I completely ignored him. I just had no interest.

Edge: What changed your mind?

MD: When Veno got his ZX Spectrum he started pestering me again, saying, "Look, this is really amazing, now it's got colour and sound. Get one, it will help you take your mind off things, and stop you being such a miserable git."

I thought, what the hell, I'll get one. I got my first computer – an all-singing, all-dancing 16K ZX Spectrum, with rubber keyboard. I think I've still got it somewhere! I had absolutely no idea about computing. While I was trying to master the English language I was about to learn another.

I taught myself the whole thing in just under two years and I decided in March 1985 that I was good enough to go for it. I made my first contact in the industry through a Commodore 64 programmer who was looking for a ZX Spectrum programmer to help him with the C64 conversion of *3D Ant Attack*.

Edge: How do you feel the industry has changed since you joined it in 1985?

MD: The industry's changed totally, for the better and the worse. I think the most significant change is that it is now a really big business involving big bucks and big risks. It is still too dynamic, making it difficult for it to mature.

Because of this we see a lot of companies come and go. Sometimes the really big ones, bringing in lots of muscle and money, squander it all and leave a big mess behind, hurting a lot of people in the process, especially small developers.

Edge: Do you think it's settling down?

MD: Yes, it's settling down now. Big companies from other industries which come to ours have learned a lot from past mistakes.



"The time is fast approaching where we can concentrate on making games attractive to both Jenny and Johnny"

The industry is now really attracting some big guns who seem to be doing a little better this time around – buying into established publishers and products rather than trying to swing their money dicks around, signing everything they can. I also believe that they are really serious about our industry, and are making a longterm commitment to it rather than saying, "We are a big corporation and we must get involved in this amazingly dynamic and fast growing business."

Edge: How close do you think the industry is to being truly mass market?

MD: The industry is slowly getting to the point where it becomes mass market with the convergence of online gaming, and the success of PlayStation.

We will get even closer to becoming mass market with next-gen hardware. Not just because they can play DVDs, but because of what we can create on them as games.

There will be enough to please both the three-year-old Jenny who wants to watch her 'A Bug's Life' DVD for the tenth time, and ten-year-old Johnny who wants to play the *Bug's Life* videogame instead.

The time is fast approaching where we can concentrate on making games attractive to both Jenny and Johnny.

Reflecting on change

Edge: How do you think it is to start out in the industry today, compared to before?

MD: It is a lot harder. A few years ago it was easier when lots of big companies were coming in and investing money in new products. That meant almost anyone with a reasonably good demo could get funding, but this has caused a lot of damage to the industry.

Now everybody is overcautious and it's very difficult to get funding for startup companies. Everybody accepts that our money people are even more conservative than the Tories when it comes to investing in our industry.

Edge: Presumably it's getting difficult to find talented staff?

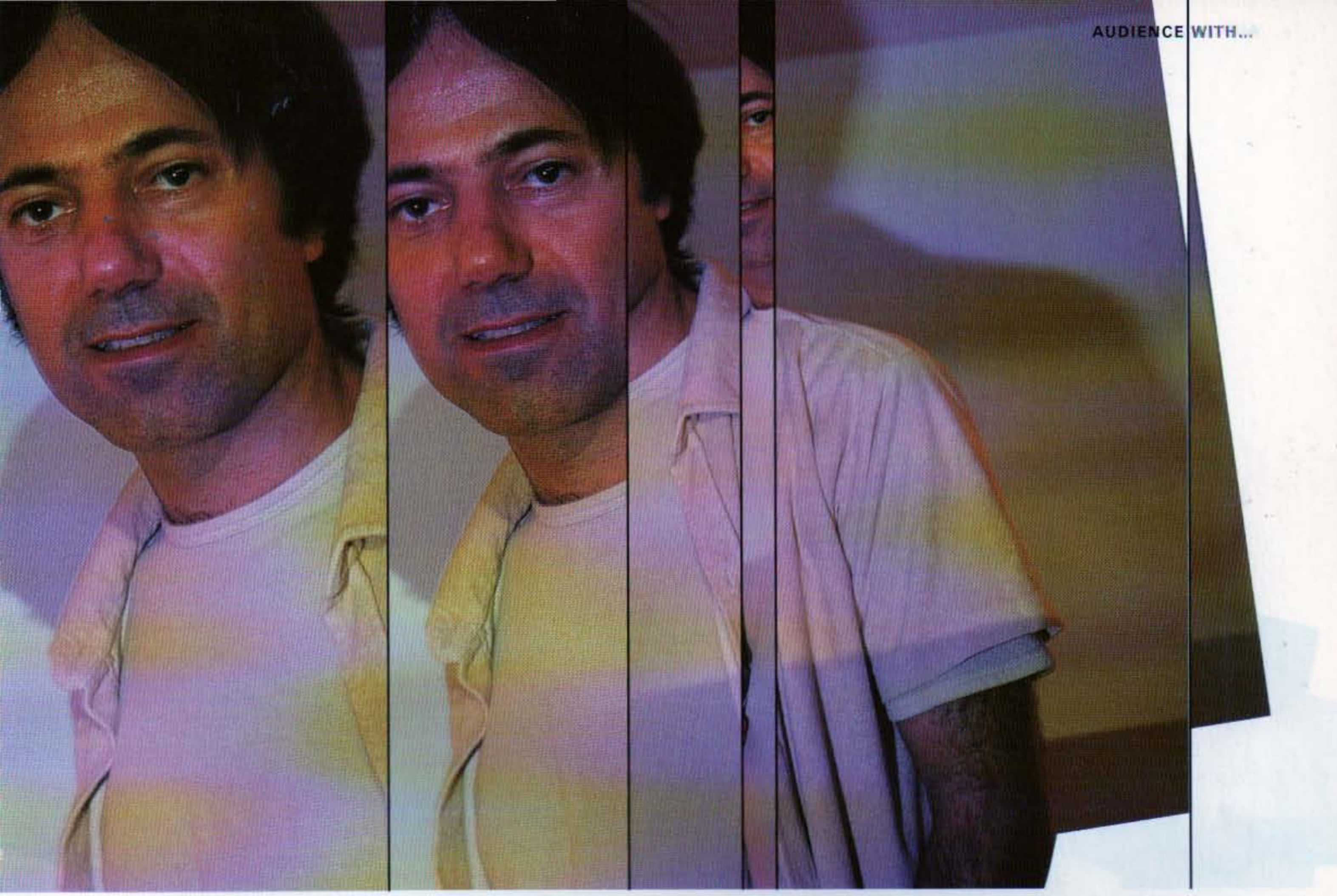
MD: In the good old days it would just take three really talented people to start a company and develop a reasonably good title for a reasonable amount of money. I think all the reason has gone now.

You need at least 15 to 20 people and a cool million to develop something decent. It's not a game any more – it's real business.

It is difficult to find a couple of good people to strengthen an existing team, let alone finding 15 to 20 of them. And that's just talking about startup companies established by experienced breakaway groups. The talented ones have no chance other than to join existing companies.

Edge: Is there a danger that the industry's moving too fast for some to keep up with?

MD: I spent two years learning to program on the Spectrum and I knew the machine inside out. It took us guys a couple of years before we could really make the Amiga sing and dance. I think this is one of the biggest problems with our industry. Before we really learn the existing hardware we have to prepare ourselves to



embrace the next-generation thing. Look at the hi-fi industry – it takes 15 years or so before a new format comes along.

This is a low

Edge: You've been through some rough times in the last few years, haven't you?

MD: Well, 1994 was a great year with *Street Racer*. I truly enjoy starting a new game, creating something out of nothing with lots of original ideas that push the hardware to its limits. I think a lot of people underestimate the importance of pushing the hardware. The more performance it gives the more you can enhance the game.

The First Samurai and *Street Racer* are two good examples of this. There are amazing colours and sound effects in *The First Samurai* and this amazing fourplayer split-screen mode in *Street Racer*, which no one dared attempt doing until then.

I know that a lot of similar racing games were cancelled by other publishers because we'd pushed the envelope so far on the SNES. The 16bit was coming to an end and the 32bit was starting.

They were exciting times. Unfortunately we made a mistake of doing all sorts of versions of *Street Racer* instead of doing what I enjoy the most – starting a new game.

Edge: So what happened?

MD: I decided that along with *Street Racer* I would also do another game which had been in development, on and off, since 1993. This new game – with a working title of *Hodja* – was very ambitious and originally considered for CD32. However, it went through a lot of changes and I finally decided it would be the first realtime 3D arcade adventure on PlayStation.

But due to expansion, to create capacity to develop two games and subsequent staff problems, we ended up putting the game on a back burner. It is still burning there. Such a shame. It could have been the first realtime 3D arcade adventure well before *Mario 64*.

Edge: And instead you did *SCARS*?

MD: Yeah, after the numerous versions of *Street Racer* I decided to have a proper go at doing a racing game from scratch on PlayStation, which ended up being *SCARS*.

This could and should have been good, but again suffered due to staffing problems. What was otherwise a great product and technically superior on the PlayStation was let down by the track designs and the lack of gameplay polish.

Edge: Wasn't Vivid Image developing *Street Racer 2* at one point?

MD: By the end of *SCARS*, in 1998, I decided to do a new game based loosely on *First Samurai*. It would've been a realtime 3D arcade adventure, with lots of new ideas and innovative techniques to overcome all the problems associated with previous 3D games. We ended up starting *Street Racer 2* with a view to building another team to start *Samurai 3D*. The problem was that Eidos really wanted the game for Christmas 1999, although everyone accepted there was only a 50-50 chance.

I thought that if this didn't happen we could switch over to *First Samurai 3D* using a lot of the technology developed for *Street Racer 2*. But it wasn't to be. I really think that at some point Eidos decided it was Christmas or never and that was that!

Edge: At what point did you realise that things were going wrong for you?

MD: Very early on. I just did not feel comfortable doing *Street Racer* and *Hodja* at the same time. Suddenly there were two projects on the go and quite a number of people working on them. I had employed a



trainee project manager whom I could teach the job and eventually would help run the company, leaving time to concentrate on the creative aspect of development.

Clearly, this guy thought he had learned enough and left along with three other staff members. They were stressful times and it took a while to get back to normal. In the end *Hodja* had to bite the bullet. This was creatively very frustrating, I was not able to work on the game that I really should have.

Edge: In hindsight, do you feel the aborted *Street Racer 2* project was in fact a blessing in disguise?

MD: I really hope so. It was a major shock and I really felt for the staff. I did not know how to handle it. I tried talking to them face to face and sent them email. It was a complete nightmare. I am at the crossroads of my career now, and I really want to take the correct turning.

Edge: What lessons have you learned?

MD: The most important lesson is that the days where you could produce a great game with a handful of like-minded people are over. Developing games is a real business. And that someone like myself should do nothing else but work on the creative aspect of game development as that's what I enjoy the most and I'm best at doing.

Edge: Have your talents been wasted?

MD: Absolutely! I have so much to offer. I just need the right environment where I could concentrate on producing a great game and if necessary help with any other products in development. I have so many great concepts and ideas and I really get frustrated not being able to develop them.

It's only a game

Edge: How do you see gameplay trends evolving in the coming years?

MD: The key is to remember that no matter what we call our industry and however powerful the hardware is we will still be making games. We should be able to produce better games so that they are more enhanced and accessible and immerse the player more.

When you buy a better CD player you just get to hear more of the music and get closer to the sound than the engineer had intended. It doesn't suddenly make jazz sound like rock or vice versa. A lot of it just boils down to style and presentation.

'Reservoir Dogs' isn't the first good violent gangster movie. Martin Scorcese has been successfully producing them for years. Tarantino has brought new style, interesting and unusual characters and good dialogue.

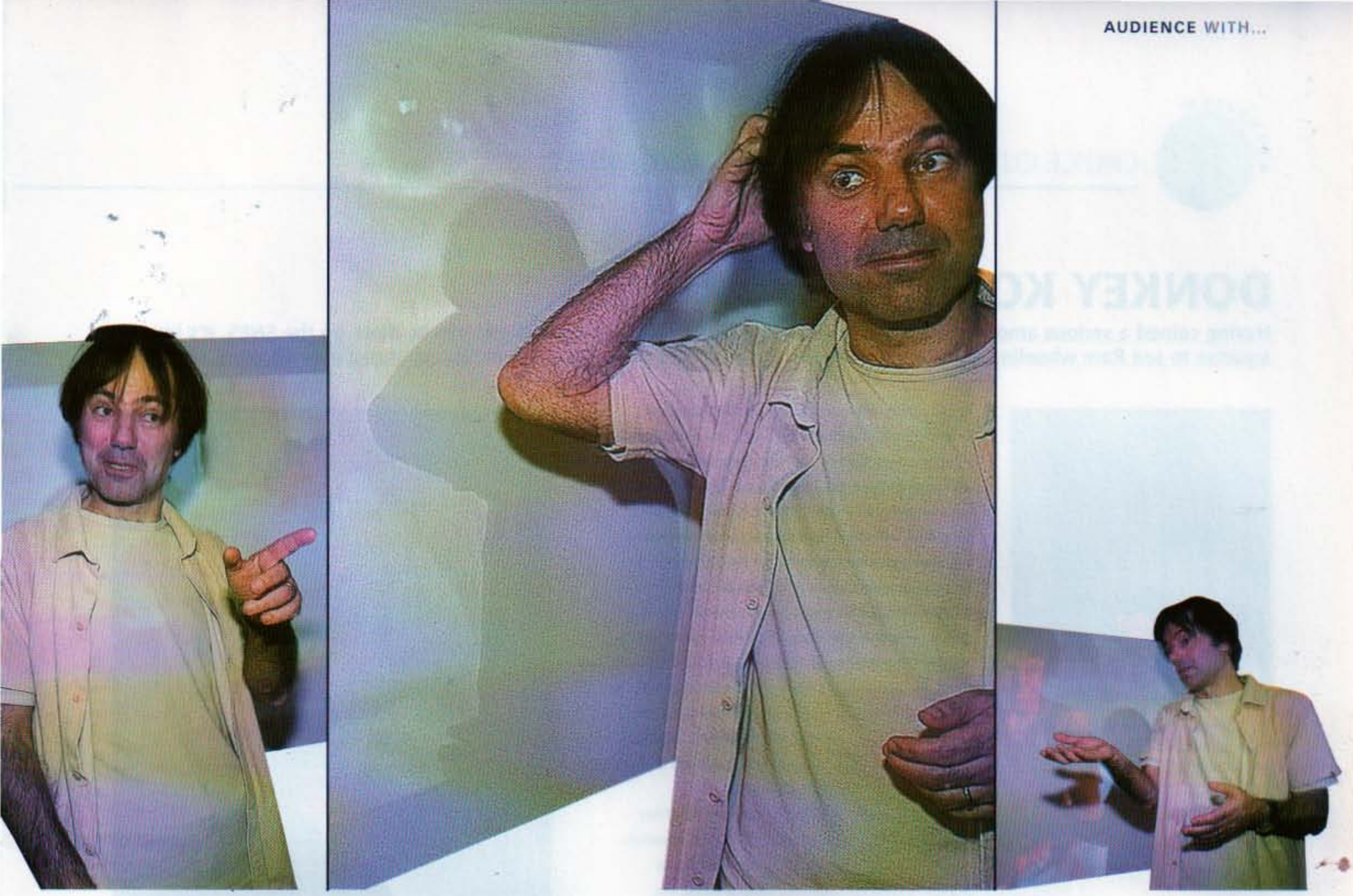
Edge: Do you think technology is evolving too fast?

MD: If you mean in terms of programming the answer is no. Good programmers will quickly learn the new hardware – even hardware geared towards 'emotion'. It's crucial that manufactures provide the right level of library support. The technological jump from 32bit to 64bit or even to 128bit is not so big a transition as it was from 16bit to 32bit, or 2D to 3D.

The main problem is that we don't get enough R&D time to explore all the possibilities the new hardware may have to offer. With all the marketing and excitement about the new technology things get blown out of proportion, sometimes raising expectations to unattainable levels.

Everyone starts talking about millions of polygons but what this usually means is thousands of polygons.

Edge: Do you think that your imagination is limited more by financial or technical constraints?



MD: It has to be financial. This does not always mean lack of money. It is the pressure of having to finish a game for yesterday because tomorrow no one will buy it.

The movie game

Edge: So what's next for Mev Dinc and Vivid Image?

MD: As the hardware becomes more powerful it enables people like me to try to explore new ideas. It's like DVD audio – due to the much higher resolution it provides it will enable the listener to hear the details that they couldn't before. This adds a whole new dimension.

I believe that next-gen hardware will be just about powerful enough for trying out new things and that's what I and my core team of five people are doing.

Edge: Which is what, exactly?

MD: I'd love to tell you, but my instinct tells me not to! All I will say is that we are working on an interactive movie.

Edge: How will it differ from something like *Shenmue*, another 'interactive movie'?

MD: It will differ in a big way. I've been thinking about doing this game for three years. This is part of the frustration.

"Things get blown out of proportion... Everyone starts talking about millions of polygons when it should be thousands"

Edge: What sort of reaction have you had?

MD: I have not told many people. I have shared some of it with Peter Molyneux. He was very excited. We've had some exploratory talks about a possible collaboration.

Edge: Talking of interactive movies, how do you see the relationship between Hollywood and the games industry evolving?

MD: In the near future we will start producing games like the movie production companies. The games will require proper plots, scripts, special effects, music and so on. I think the two industries will overlap. It'll be like Pixar and Disney producing a film together.

Edge: What lessons do you think game developers should learn from movies?

MD: We can learn a lot from the movie industry – scripting, storyboarding, design, choice of music, camera and editing. I am really surprised that there aren't more film companies coming into our industry. We already have so much in common. With the next-gen hardware it's going to be easier to share technologies.

Edge: Do you believe that there is still a place in the games industry for a small developer such as Vivid?

MD: I think you can have a small developer with 15 to 20 people, but with strong ties to a big company.

Edge: Having faced difficulties, what do you think is wrong with the industry today?

MD: It needs to settle down to just a few superpublishers and lots of good studios, just like the movie and music industries.

The development community needs a single voice and a more creative influence on the industry. I started Society of Software Authors with Jon Dean a long time ago and we still don't have anything like it today. Developers should talk to each other a lot more.

DONKEY KONG

Having coined a serious amount of consumer cash with *Donkey Kong Country* parts one to three on the SNES, it's little surprise to see Rare wheeling out the great ape on the N64 (see p74). How things have changed over 18 years, though



It's difficult to believe today, but in 1981 Nintendo's biggest noise in the west came in the form of a fat ape

Because of the evolutionary nature of computer hardware over the last 25 years, one of the foibles inherent in videogame design and production has been to work around constraints. Or, as Shigeru Miyamoto and his team famously did in 1981 when they created *Donkey Kong*, work *with* them. Miyamoto-san sought to create a truly memorable lead character, but the 8bit technology at his disposal could animate only diminutive sprites, and by his own admission he wasn't much cop when it came to drawing a hairstyle with pixels. Thus, Mario gained a cap to hide his hair problem, and moved into the plumbing trade simply because putting red arms against the blue backdrop of a pair of dungarees would make their animation appear more obvious and convincing. His moustache, meanwhile, was given life simply because Miyamoto-san and co could not effectively represent mouth details.

Similarly, memory constraints forced a limit of four levels on to the game. Yet this did not prevent Miyamoto-san incorporating one particularly notable gameplay element: picking up a hammer, Mario switched into powered-up mode, something he would go on to do, in one form or another, time and again in future games.

Playing *Donkey Kong* today requires superhuman levels of patience, such is its unforgiving nature. But the old charm rarely fails to shine through.



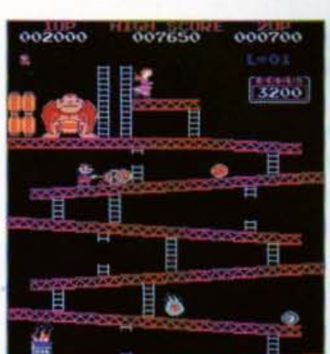
Shigeru Miyamoto's original character sketches

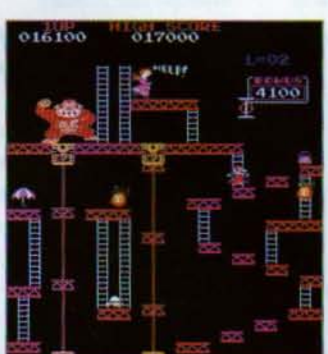




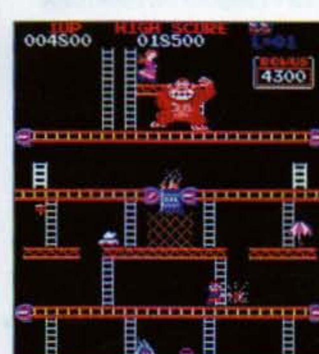


Having enjoyed 'King Kong', Miyamoto-san shamelessly reproduced the theme in game form, prompting the threat of legal action from Universal Studios. In typical fashion, the game company resisted such triflings, and *Donkey Kong* went on to become Nintendo's first big success outside of Japan









From left to right: here comes the hammer; later levels offered more complex architecture; passing over rivets brought Kong down; the game as it appears within *DK64*

Manufacturer: Nintendo | 1981 | Developer: In-house | Coin-op/various

EDGEVIEW

The videogame world never stands still, riding the breaking wave of advancing technology. In this regular column **Edge** puts the industry's progress in perspective with a look at yesteryear's headlines: five years ago this month



Edge issue 16, January 1994



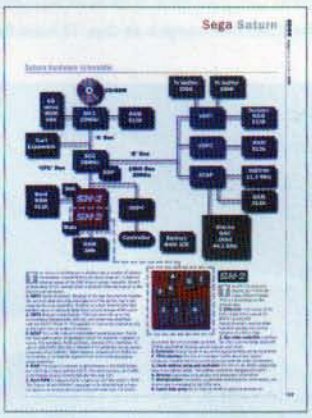
SCE's Terihusa Tokunaka at the PlayStation media event, quite unaware of what lay ahead

Anyone wondering just how Sony's PlayStation made such an impact on the gaming world need only look at an issue of **Edge** such as this, which reported from the company's prelaunch press show in Tokyo in terms that can only be described as glowing. As Sega's Saturn prepared to hit Japan nearly two weeks to Sony's machine, PlayStation representatives wasted no time in putting joypads in the hands of assembled press attendees. 'A credit to both the power of the hardware and the dedication of Namco's development team' was **Edge**'s verdict of a preproduction *Ridge Racer*, going on to conclude that 'the PlayStation is going to be very difficult to ignore'.

Despite its inexperience, Sony already had **Edge** melting in its palm. But Sega was having a rougher ride, its 32bit console being examined in detail elsewhere in a slightly less enthusiastic light. Bungled architecture (hurriedly pieced together in an effort to match up to Sony's specs) was singled out as a possible stumbling block.

Still, Dave Perry (then "a Sega man at heart") was "behind Sega all the way." Which is why Shiny produced so many Saturn games. Er...









Clockwise from top left: Edge wastes little time in espousing the merits of Sony's new format (even in video form); a classic Edge hardware schematic; 3DO *The Need For Speed*, still the best in the series; *Final Fantasy III*: genius

Did they really say that?

Sega's **Tom Kalinske**: "Saturn will be at a price point that will not make it a massmarket item." Which rather begs the question, why bother launching it?

Did Edge really say that?

'Sadly, **Edge**'s idea for 'Sci-Fi Naked Birds And Muscle Car Monthly' has not passed the board's initial screenings.' Blimey, a veritable side-splitter

Testscreens (and ratings)

LBA (PC; 9/10), *Burn: Cycle* (CD-i; 7/10), *Zeewolf* (Amiga; 8/10), *FFIII* (SNES; 8/10), *Doom* (Jag; 8/10), Soul Star (MCD; 7/10), Off-World Interceptor (3DO; 7/10), Virtua Racing Deluxe (32X; 8/10), Star Wars Arcade (32X, 8/10)

PIXELPERFECT

Every gamer has occasional moments of sparkling excitement, be it the first time *Speedball* booted up, or completing *Sabrewulf*. Here, **Jason Kingsley**, MD of Rebellion (whose CV includes the likes of *Aliens Vs Predator*), recalls a *real* RPG

I was about ten years old and playing games like Diplomacy and Risk at lunchtime one winter term. But I always found them to be limiting in some indefinable way.

I wanted the cavalry to be able to do different tasks in Risk; I wanted to have a navy in Diplomacy, so I spent many hours creating alternative rules, much to the delight of my friends. (The most famous instance was Nuclear Monopoly, where a player could purchase a nuclear missile and send it against another player's property, destroying it and creating a radioactive wasteland).

One day I found a magazine advert for a game called Tunnels & Trolls, a kind of poor man's Dungeons & Dragons.

I persuaded my father to write a cheque out to the mail-order company and within a few weeks this mustard-yellow rule book turned up. It was my first experience of roleplaying games and was to shape what I wanted to do in my professional life.

The thrill of creating a world for others to explore still drives me to create alternative universes, on a computer. I still have the mustard-yellow rulebook today.



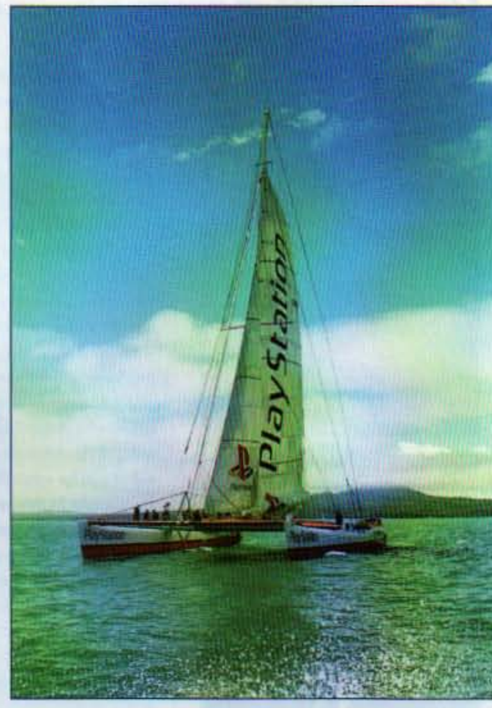


Okay, it's not a videogame, but T&T's influence is undeniable

PlayStation hits choppy waters

US: Constructed in New Zealand and shipped to the US prior to its attempt at breaking the TransAtlantic sailing record, PlayStation, the world's fastest catamaran, is the latest venture for Steve Fossett, world record-setting yachtsman and balloonist (and good friend of fellow record-hunter Richard Branson, who is also part of the crew). The current record for the 2,888-mile voyage is six days, 13 hours three minutes 32 seconds, set in 1990 by Frenchman Serge Madec.





A massive 32 metres (105ft) long, with 10,000 square feet of sail and a 40-knot top speed, PlayStation should sail from the New York Harbour to the Lizard in the UK in record time

Invasion of the pocket snatchers



Storming the Houses of Parliament: Meowth and Pikachu see the sights as the UK invasion kicks off

UK: The impact may not have been as big as it has been previously in Japan and the US, but Nintendo's small saviours finally arrived on British soil in October, boasting almost three times as many varieties as Heinz.

And Kyoto's hype machine was on hand to record the progress of the little critters (and the big guys dressed in Pikachu and Meowth costumes) from their off-loading at the Channel into the heart of London.

The following week, *Pokémon Red* and *Blue* duly took top spot in the game sales charts, despite retailing at £25 a pop, adding a few more million to the $5bn that the phenomenon has already turned over worldwide. Next up will be *Pokémon Yellow*, a reworking of *Red* and *Blue* which adds few new creatures but is better tied into the cartoon series.

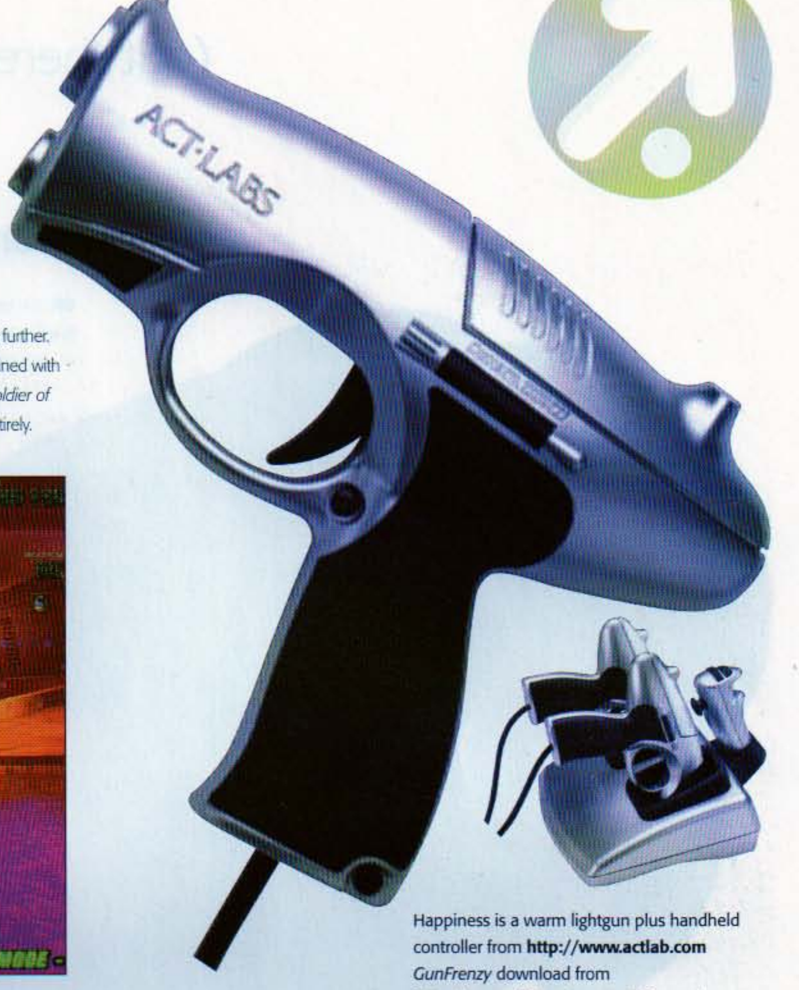




American gunheads pack pistols

US: Not content with simply making a new level for *Quake*, some people go one step further. The latest example is *GunFrenzy*, a lightgun mode for *Quake II*, which has been combined with ACT Labs GS gun system for the easiest FPS experience ever. Other games, such as *Soldier of Fortune*, will also support the gun. Whether it's actually worth $90 is another matter entirely.





Happiness is a warm lightgun plus handheld controller from **http://www.actlab.com** *GunFrenzy* download from **http://www.glitterstream.net/frenzy/**

Onward Christian fraggers

US: Sickened by the glut of Godless games, Christian developer Eternal Warriors has turned its hand to making a holy alternative. The result is *The War In Heaven*, a firstperson shooter that attempts to incorporate Christian values with killing things.

Players choose to follow either the Divine path of Obedience or the Fallen Path of Knowledge, playing as an angel ascending the 12 levels to heaven or as a demon on a highway to hell.

Throughout, spiritual truths such as the fear of the Lord and righteousness are revealed. The game is gore and gib free too, as the developer wanted to get a teen rating from the American software board. Retail chains expect it to sell well. Whatever next?











If *The War in Heaven* is the next *Deer Hunter* PC success in the US, expect an *Unreal: Prayer Meeting* mission pack to follow before too long

Racing at full tilt

UK: The latest thirdparty controller to try to tempt the kids away from their DualShocks is the Airpad. Boasting a range of different modes – from digital to analog and JogCon – it uses a combination of microprocessor and optical technology. Said to be particularly suited for driving, flying and action games, **Edge**'s personal experience suggests that it's well suited to *Wipeout*-style experiences but less comfortable with traditional racing games (the absence of any form of resistance makes for a rather detached sensation). One obvious benefit of the Airpad is the ability to play using just one hand, and it is a supremely customisable unit. Definitely an acquired taste, versions of the controller for Dreamcast and PC are expected to follow.





At launch, 200,000 Airpads were shipped to retail. On sale now, it clocks in at £25

Hacking up a Civilisation

US: With the voracious open-source community desperate for code to improve, the recent Atlanta Linux Showcase proved itself the place to be. In particular, the Loki Hack event offered 30 hackers the chance to get to grips with the guts of the Linux version of the epic *Civilisation: Call to Power*. Prospective Kevin Mitnicks had just 48 hours in which to add the most impressive new features to the game.

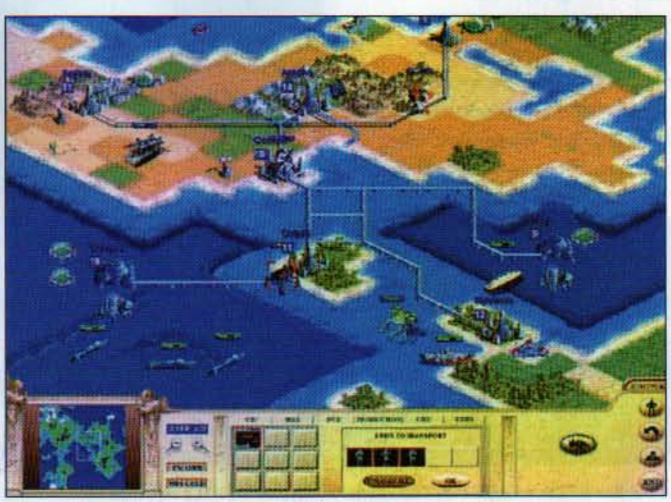
Hacks varied from the sensible, such as the introduction of code that allows players who have been dropped out of a networked game to rejoin as the correct civilisation, to the plain ridiculous. There was plenty of competition for the latter, with the addition of a 'wonder' to the game (which when completed caused all lawyers to explode) and the introduction of *Tetris* and *Pong* subgames being among the more bizarre.

Disappointingly, the winner merely added several new stealth units and modified the spy unit allowing it to infiltrate an enemy city and view all its stats. The spy died in the process.

Loki Hack '99 attracted a slew of super-eager amateur coders (right). Results from the event will be made available for download at: **http://www.lokigames.com/hack/**







Dreaming Japanese

UK: As previously reported (**E**76) the combination of Neil Gaiman and *Final Fantasy* artist Yoshitaka Amano in a new *Sandman* graphic novel is one of the year's visual highlights. Entitled *Sandman: The Dream Hunters*, the illustrated text format mixes text with full-page paintings from Amano-san. The artist is also expected to tour selected UK bookstores from the end of November, when the volume is released.



A tale of magic and revenge, *Sandman: The Dream Hunters* takes Morpheus, king of dreams into the convoluted world of ancient Japan

It's got legs (and a belly)

US: Although it sadly didn't make the transition to Europe, the Stateside advertising for UbiSoft's favourite cute-if-limbless character, Rayman, was nothing short of inspired. **Edge** reckons there might even be a game concept waiting to pop out somewhere.



The difference is clear

Japan/UK: The iMac-ing of consumer electronics is continuing apace. In Japan, four coloured Dreamcast joypads are being released, as is a full set of limited-edition Hello Kitty systems, including keyboard, console, VMS and joypad. These will be available at the end of December in pink and blue varieties at ¥23,000 (approx. £130). Closer to home, Nintendo is attempting to kickstart the N64's wretched sales by shipping 70,000 coloured units into the UK, priced £75 each.







Did Apple know what it was starting? Coloured translucent casings will soon be everywhere

Snappy arcade gaming

US: Continuing to push the ingenuity of the emulation community comes James Surine, part of the *MAME* project, who has managed to get classics games such as *Pac-Man*, *Frogger* and *Donkey Kong* working within the processing and memory constraints of a Kodak DC265 digital camera. Further developments should also get the code working on DC220, 260 and 290 units. He will even attempt to support sound in a future build. Check it out at: **http://members.aol.com/JWSurine/**



Digital camera *MAME*: one of the most ingenious, and imaginative, coding feats **Edge** has seen

Is the writing on the wall for Sony?

UK: The morning after witnessing the successful Dreamcast launch in central London, **Edge** was surprised to receive an email from Sega's PR people containing what looked like a clumsy attempt to convince the world that a headstrong fan really had taken the fight to Sony, and in particular its head office. However, a spokesman for Sony told **Edge** that the graffiti incident pictured below did not in fact happen. A whiff of *Photoshop* trickery was evident, but the fact that the building is the HQ of Sony Music not SCEE was the cherry on the cake.



DataStream



Active subscriber base of *EverQuest*: **150,000 players**
Number of PlayStation2 titles currently in development according to Sony: **over 160**
Number of levels of pressure PlayStation2's Dual Shock 2 controller can sense: **256**
Percentage of Japanese gamers who thought PlayStation2 was overpriced: **83%**
Percentage of Japanese gamers who would buy a PlayStation2 on its launch day: **34%**
Percentage of Japanese gamers who said they would buy a 64DD on its launch day: **4%**
Number of Neo-Geo Pocket Color handhelds sold in the first six weeks of its UK launch: **10,000**
Number of Neo-Geo Pocket Color handhelds sold in Japan during the first week of October: **174**
Value of the deal between Nintendo and IBM for the Gekko chip, making it IBM's largest single order ever: **$1bn**
Number of *Tomb Raider IV* CDs Eidos is giving away during its US Pizza Hut promotion: **5m**
Number of *Tomb Raider III* strategy guides sold in Germany: **350,000**
Capcom's advertising spend in the US for *Dino Crisis* (PS), *Resident Evil 3: Nemesis* (PS) and *Resident Evil 2* (N64): **$20m**
Predicted increase in Capcom's profits for FY'99: **fivefold**
Total value of the UK peripherals market in 1998: **£200 million**
Estimate retail value of pirated CDs seized by ELSPA crime unit at a Cardiff car boot sale: **£67,200**
Number of copies of *StarCraft* sold in Korea: **1m**
Number of official *Pokémon* merchandise licensees in US: **90**



MATTHEW SWEET
In Reverse
(Jive)

Seven albums into his investigation of guitar-lead rock, Matthew Sweet's taken his craft to new heights. With a Wall of Sound vibe on tracks like 'Thunderstorm', Sweet marshals an ensemble of 15 musicians. Interspersed with these epics are more retrospective ballads, such as 'Hide' and 'Don't Let Me Go On', that have come to characterise the years he's spent as the artist most likely to have a big hit. And if he hasn't yet, it's nothing to do with the quality, only market fickleness. Classic rock has never sounded so sophisticated.



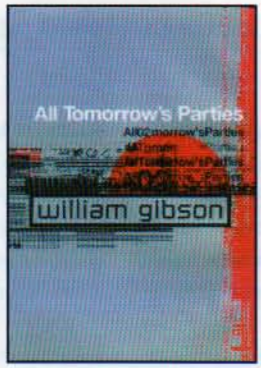
JUNGLE BROTHERS
V.I.P.
(V2)

Produced and co-written with Propellerheads' Alex Gifford, New York's Jungle Brothers leap back into the fray with their 'Very Important Party' album. And despite the band's hip-hop roots, Gifford seems to have brought a large variety of musical influences to bear. Everything from soul, rock, blues and big beat is attempted and guests include Huey from FLC and Black Eyed Peas. Still, it's the more traditional rap tracks, particularly the easy retrospection of 'I Remember', that work best.



IAN BROWN
Golden Greats
(Polydor)

It's been a long year for the ex-Stone Roses man. Ever since he decided to share his thoughts on Nazis, homosexuality and whether he could fly a commercial airliner, music has taken a back seat. So it's pleasing that 'Golden Greats' sees the self-styled king monkey return so robustly. Rock guitars, baggy tunes and groovy beats are all in evidence and even if the dry vocal style isn't immediately endearing, this remains something of a second coming.

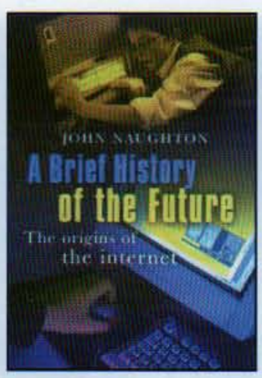


Author: **William Gibson**
Publisher: **Viking**
ISBN: **0 670 87557 0**

ALL TOMORROW'S PARTIES

Despite its forward-looking title, there's a retro atmosphere pervading William Gibson's latest take on the uneasy cyberspace world he all but invented back in the late '80s. This is partly due to the reintroduction of some characters from his previous books. Gibson has always liked to loosely group his books. 'All Tomorrow's Parties' acts as a conclusion to the people, places and zeitgeists first explored in 'Virtual Light' and 'Idoru'. But where 'Virtual Light' was a muscular romp, courier Chevette Washington chased around a decaying California by freelance cop Barry Rydell, 'Idoru' was pure information – literally a case of falling in love with a virtual being. The book resulting of a collision of these styles is enigmatic, to say the least. In many ways, much is promised in 'All Tomorrow's Parties' but little happens. Maybe that's the point.

Deep in cardboard city on a Japanese subway platform, Colin Laney sieves information, seeking the mother of all nodal points, the place where the undisclosed will change. Meanwhile, out in San Francisco, Washington and Rydell find themselves drawn back to the squatter community which has taken over the Golden Gate Bridge. Killers are on the loose, working for who knows who. Even the Idoru herself, Rei Toi, appears, waiting for something to occur. And while there's action, and even some sort of resolution – the word made flesh – Gibson seems to be playing a waiting game, as if he's already setting up for a sequel. That said, it remains one of Gibson's most thoughtful books.



Author: **John Naughton**
Publisher: **Weidenfeld & Nicolson**
ISBN: **0 297 64330 4**

A BRIEF HISTORY OF THE FUTURE

With the number of books discussing the place and importance of the Internet currently reaching glut-sized proportions, here at last is one that treats the phenomenon in a humane and reasonable manner. Part social history, part layman's journey of amazement, 'A Brief History of the Future' particularly focuses on the role of information in the development of the Internet.

Starting with post-war mechanical filing systems and early computer networks, Observer columnist John Naughton stresses the social aspects of the evolving technology. Pioneers such as Tim Berners-Lee are well known for their contributions, whereas the likes of Douglas Engelbart and Paul Baran have fallen by the wayside. Yet, as Naughton stresses, from TCP/IP to email and HTML, it's been a combined effort.



DVD: THE MATRIX
(Warner Home Video) £20

Wachowski brothers Andy and Larry's second directorial effort (following 1996's noirish thriller, 'Bound') is not a cinematic masterpiece in narrative terms. However, it succeeds in mustering up some of the most stylishly filmed action sequences to ever emerge from a Hollywood studio. As such, and assuming you're willing to be taken along for the ride, it's riotously entertaining stuff, even with Keanu Reeves as the lead protagonist.

Owners of widescreen monitors will be pleased to find a crisp 2.35:1 anamorphic pressing waiting to fill their screens, while the Dolby Digital soundtrack should immerse even the most cynical of critics. Warner offers an impressive amount of options (as featured on the US disc) thus upgrading the disc to must-have status.

VIEWPOINT

EXPRESS YOURSELF IN **EDGE** – WRITE TO: LETTERS, **EDGE**, 30 MONMOUTH STREET, BATH BA1 2BW (email: **edge@futurenet.co.uk**)

Although I have been a reader of your reliable mag for a long time, I have never really felt a need to write in about anything until now. Hopefully you can help me, since the people in charge don't seem to know.

I, like many others, am a very loyal Sega fan, and have bought a Dreamcast, and very pleased I am too. Gaming is enjoyable again, with immediate classics like *Sonic* and *Ready 2 Rumble*.

However, I recently sent an email to Sega's 'customer service' section, enquiring as to whether *Soul Calibur* would include a 60Hz option, following the poor conversion of *Virtua Fighter 3tb*. The reply was, "We cannot speak for thirdparty developers." Terrific!

So this is the most anticipated game in the 1999 UK Dreamcast lineup, and Sega's own support team don't know if it's going to be a first-rate conversion to lure PlayStation owners away from *Tekken* or whether us loyal Sega fans will once more be let down by false promises of 'a new dawn in European gaming'.

I really do hope the Dreamcast is a success. I think videogames need Sega and software such as *NiGHTS* and *Shenmue*. But I wonder how long the company can go on when important questions and issues seem to be disregarded quite flippantly.

Danny Edgar, via email

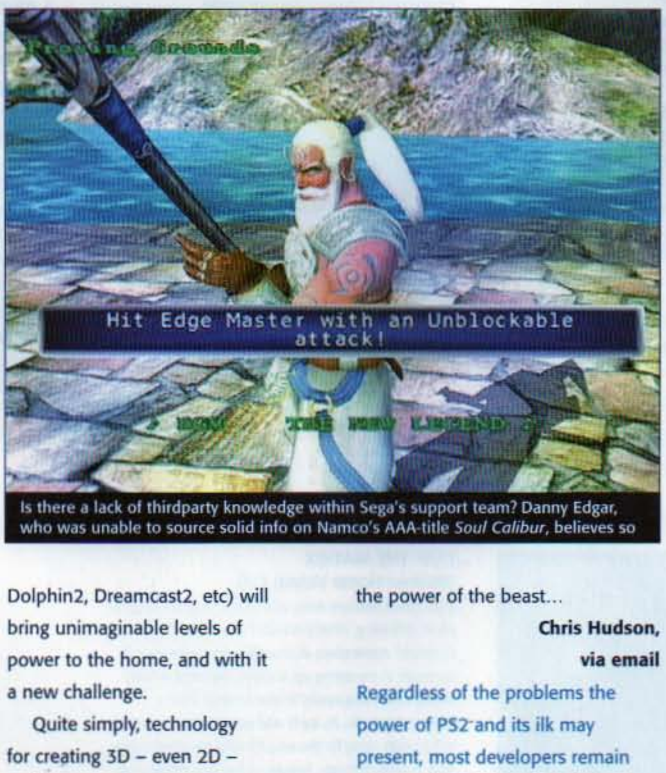
Rest assured, PAL *Soul Calibur* has a 50/60Hz option. Good point about Sega, though. The company seems intent on making its life difficult.

This is another letter from a big fan, with big worries about the future. Is it just me or is Sony's new PlayStation a threat to everyone? Obviously it is to Sega, Nintendo, and now Microsoft, but I think the ones who should be really worried are the programmers. The people who will need to support the system will find themselves bogged under in an attempt to create great-looking games. Even if they do manage it, what of the future? New consoles (PlayStation3, Dolphin2, Dreamcast2, etc) will bring unimaginable levels of power to the home, and with it a new challenge.

Quite simply, technology for creating 3D – even 2D – environments is not progressing at the same rate as the power with which these environments are created. It's like building a 50-story high-rise building with some cheap Sellotape and balsa wood. It won't work.

On a final note, maybe with the power of the Playstation2 we will see a return to the drawing boards with virtual reality. With the sheer polygon-pushing abilities of the platform, near photorealistic (or at least good enough) environments will be possible for HMDs. That is, of course, only if we can tame the power of the beast...

'I think the ones who should be really worried **are the programmers. The people who** will need to support the system will find themselves **bogged under'**



Is there a lack of thirdparty knowledge within Sega's support team? Danny Edgar, who was unable to source solid info on Namco's AAA-title *Soul Calibur*, believes so

Chris Hudson, via email

Regardless of the problems the power of PS2 and its ilk may present, most developers remain upbeat, claiming that finally they are being given technology capable of truly representing their wildest imaginings (having for so long had to scale down projects because of the limitations of the PS and N64). Whether they'll be so optimistic in two or three years' time remains to be seen, of course.

How's this for a snapshot of the general public's view of the Nintendo 64?

Last Friday, I went into Electronics Boutique to buy *Rayman 2: The Great Escape*. The guy serving me looked at the game, then said, "I'm sorry, I'm going to have to see some ID – this game is only for under-fives."

Very funny.

I am 25 years old, and so far have enjoyed every minute of my £40 game. But how many customers have been turned off the N64 if the people selling the games perceive them to be for kids?

Obviously the guy was joking – I'm not that touchy about it. I personally don't care if I play three or four decent N64 games a year, and if all of them are platform games. That's just me; I've got other things to do in between releases, and when the quality releases like *JFG* come out, I will relish them all the more. But it is becoming obvious from the sales figures that thousands of people don't see it that way.

If this is addressed for Dolphin, Nintendo will do well again. If Nintendo doesn't, and continues to starve gamers of steady, quality, adult releases, it will die. It's as simple as that, and it will be a crying shame if it happens.

Tony Ounsworth, via email

I just wanted to express my disappointment with the state

of play with Nintendo 64 software.

I have been a very loyal follower of Nintendo through the ages (NES to SNES to N64) and would even go as far as to say that my brand loyalty made me ignore the PSX in favour of waiting an extra year or so for the launch of the N64.

I am, however, regularly irritated by the fact that every time I pop into any high-street retailer I spy a plethora of new, high-quality titles and an impressive back catalogue for the PSX while the N64 cupboard remains undeniably bare. The old argument from Nintendo and the N64 owner was 'quality, not quantity', and for a time this was almost acceptable, but now, some two to three years down the line, can Nintendo be pleased with the fact that its quality back catalogue consists of *Super Mario 64*, *Ocarina of Time*, *GoldenEye* and maybe a couple of other titles?

I know *Jet Force Gemini* is nearly with us, ditto *Donkey Kong 64*, *Perfect Dark* and perhaps a couple we don't know about, but the fact remains that we have been waiting nearly *a full year* (since *Ocarina*'s release) for something worth £40-£50 to come out on the N64.

This, along with the fact that Sony is releasing Playstation2 as a backwardly compatible unit (both in software and hardware terms), makes me think that Nintendo is going to have to pull something rather special out of Zelda's hat/Mario's cap to make me buy a Dolphin.

Right, with that off my chest I'm off down to Electronics Boutique to see the happy shoppers grab *Final Fantasy VIII* for 30 quid...

Christian Cecchi,
via email

Isn't there anything else **Edge** readers have to say? Every month these pages are filled with everyone's own enlightened opinion on the Sony/Sega/Nintendo next-gen consoles. I don't want to know any more. Unless you have something profound or new to say, please don't waste columns of space comparing the relative merits/downsides to every single bit of each company's past, present and future strategies.

Every single day we learn a little more about the new consoles. Absorb the information, sift through the rumours and hype, form your own opinion. Then keep it to yourself. Argue with your mates over which console will be better, just please don't tell me about it.

Can't we have some new topics of discussion? Something a bit more interesting or controversial, maybe? I could start here. How about smell-based feedback controllers – the next revolution in gaming?

Chris Esson,
via email

The **Edge** team has had some of those controllers in the office for a while now, Chris. Seriously, don't believe the hype.

If I went out and bought a game today and it was faulty I could get an exchange or my money back. But what if the fault was not isolated to my disc, but to every other disc being sold?

Take *Sonic Adventure* (DC) or *Silicon Valley* (N64). Both of these titles display obvious problems with the camera angles but this flaw is not a permissible reason to get my money back.

We often look at the film industry as a guide to the future of videogames. But how many times have you watched a film where the camera got stuck behind a post or got so close to a wall you could see the other side?

'We often look at the film industry as a guide to the **future of games.** But how many times have you **watched a film** where the **camera got stuck?'**

I am sick of finding glitches and having no way to return the game. How will the developers learn if we can't influence them with educated purchasing decisions?

Every other type of company I can think of will give you your money back if the product is less than satisfactory, even at the risk that people will abuse this setup and take back films they have watched or clothes that they have worn once.

I work for a company making DIY products which are prone to being used for a weekend and returned for a full refund. This creates a free hiring service for many people.

So a message to software developers, distributors and retailers alike. (I have no idea which party is most responsible for this situation but you are all taking advantage of it.) You are not the only industry that has to put up with non-faulty returns. By implementing this system you are not allowing consumers the rights they deserve.

It is not healthy for the future of videogames to allow this to continue. Otherwise constantly shoddy, rushed games will be released on to the market with game developers reaping the same financial rewards as if they had produced a quality game. Not everyone reads a games magazine.

Vladimir Imp,
via email

But a surprisingly large number of retailers *do* offer quibble-free refund/exchange policies. And, oddly enough, it's more often chains that operate this way. It's simply a case of shopping around. (To cut coders some slack, it's a little bit easier to manufacture a reliable stepladder than it is to engineer the latest *Quake*, isn't it?)

I have to agree with Ashley Simmons' letter in **E**77. The childish rantings in your letters pages about which games are good, bad or indifferent are becoming tiresome, especially from readers of a magazine as informed and intelligent as **Edge**.

Equally disturbing is that much of the blame for there not being enough quality in the videogames market is placed at the door of Sony and its band of casual gamers making uninformed choices.

I own a PlayStation and a PC and I have been playing computer and videogames for more than 20 years. I bought *FIFA 99* because I love football and *Tekken 3* because the previous two were so good.

I have bought many other games which were hyped too much for their own good but they were still very good games (*Metal Gear, Resident evil, Final Fantasy* – the list goes on).

Am I a casual gamer? Do I fall for the hype and glossy posters in HMV? (Dreamcast anyone?) Do I fall for Lara's oversized assets or buy a game because of flash graphics and long FMV sequences? Absolutely not. I'm 27, fairly well educated, have a reasonably high disposable income, and I feel I choose my games very carefully.

I have only bought one game that I was very disappointed with (*Birth of the Federation* on PC). I bought my PlayStation in 1995, when it was in its infancy, confident in Sony.

The games released at that time showed what the machine could do. The PlayStation has gone the distance for those people who had faith in it four years ago.

Even now there are games being released which, although not exactly cutting edge, are as playable as those available on so-called superior formats.

People rave about how the Saturn is considered the hardcore gamers' machine. Well, last Christmas I saw a kid in Virgin with his dad looking for a new game for his Saturn (probably recommended to him by a Dixons salesman who said Sony's machine was inferior, just as I was told), but alas there were no new games for his machine. The poor kid was in tears.

To you and some of your readers, winners and losers in the industry are just a fact of life. But to some poor kid it means a disappointing Christmas. And I think those who choose Dreamcast now will have a few disappointing Christmases in the not-too-distant future.

Some of your readers are too quick to patronise people who are willing to fork out for products they feel comfortable with, such as the PlayStation, and suggest that the mindless masses are killing the software industry, just like they killed the film industry and the music industry no doubt.

I wish Sega would concentrate on arcade machines and games because the company is so good at it. I think Sega's consoles have at best been average.

Dreamcast is barely more powerful than an average PC with a 3D card (compared with the PlayStation, which was much more capable than the average PC in '94).

It was amusing that Sega started talking about Dreamcast 2 three weeks before the first Dreamcast was available in the UK. Is this Sega's way of thanking its customers for giving the company one last chance?

There will be more add-ons for Dreamcast than there are for the average home PC. I think I'll wait for PlayStation2 if only because I expect it will have a significantly longer lifespan. Or is that just casual gamer talk? Have I been fooled by the hype?

Mark Hall,
via email

'To you and some of your readers, **winners and losers** in the industry are just a fact of life. But to **some poor kid** it means a **disappointing Christmas**'

More add-ons for DC than PC? Hardly. Anyway, for the record, Sega itself did not leak info on Dreamcast 2 to **Edge**. The information came from another source, which must remain anonymous. You can be very sure that Sega did not want news of the successive technology to become available to the media.

The Dreamcast is on the shelves, having survived its delay. Yet it seems some folk are still resentful. Games shop owner Terry Charleton (**E**77) makes much of the fact that a handful of supposedly hardcore gamers cancelled orders and went the import route (and not via him!).

Big deal – they're not hardcore, just intolerant. Mr Charleton's condescending attitude towards 'nouveau' gamers (those who started videogaming with the PlayStation's arrival) isn't likely to win him many customers either.

As a working adult and one of your nouveau gamers I no longer need my dad paying my deposits or anything else. Lose the snobbery.

As for Dreamcast's delay, would you rather see Sega release a machine with arguably its strongest selling point – affordable Internet access – not fully sorted? And contrary to Mr Charleton's opinion, I'd say a good many Dreamcast buyers did so for precisely that aspect. The dearth of keyboards on launch day seems to suggest a keen online interest.

Yes, the Saturn failed – get over it. It's old news. Yes, Dreamcast was late – it's here now so get over that, and get on with it!

Chris Jones,
via email

I await with interest evidence of young Mr [Demis] Hassabis' infinite polygon engine and the changes to humanity's understanding of the laws of physics that it will bring about.

I have been working on something which may also be of interest to you. I call it the Infinite Monkey Engine. I have developed a method of ensuring that all ingame characters will react completely realistically to any situation with which they are presented.

I have achieved this by creating a number of independent agents equal to the number of possible situations which can arise within the game.

I call these agents monkeys. At each decision point for a character I simply locate the monkey which has been presented with the character's particular situation and apply that monkey's actions.

As the game environment becomes more complex, I increase the number of monkeys under consideration. Ultimately I will have an infinite number of monkeys to choose from, carrying out an infinite number of actions.

It's inevitable that one of them will be found to spew out a column of self-serving claptrap on a monthly basis. He will rightfully be declared Monkey King and worshipped by all. Good for him!

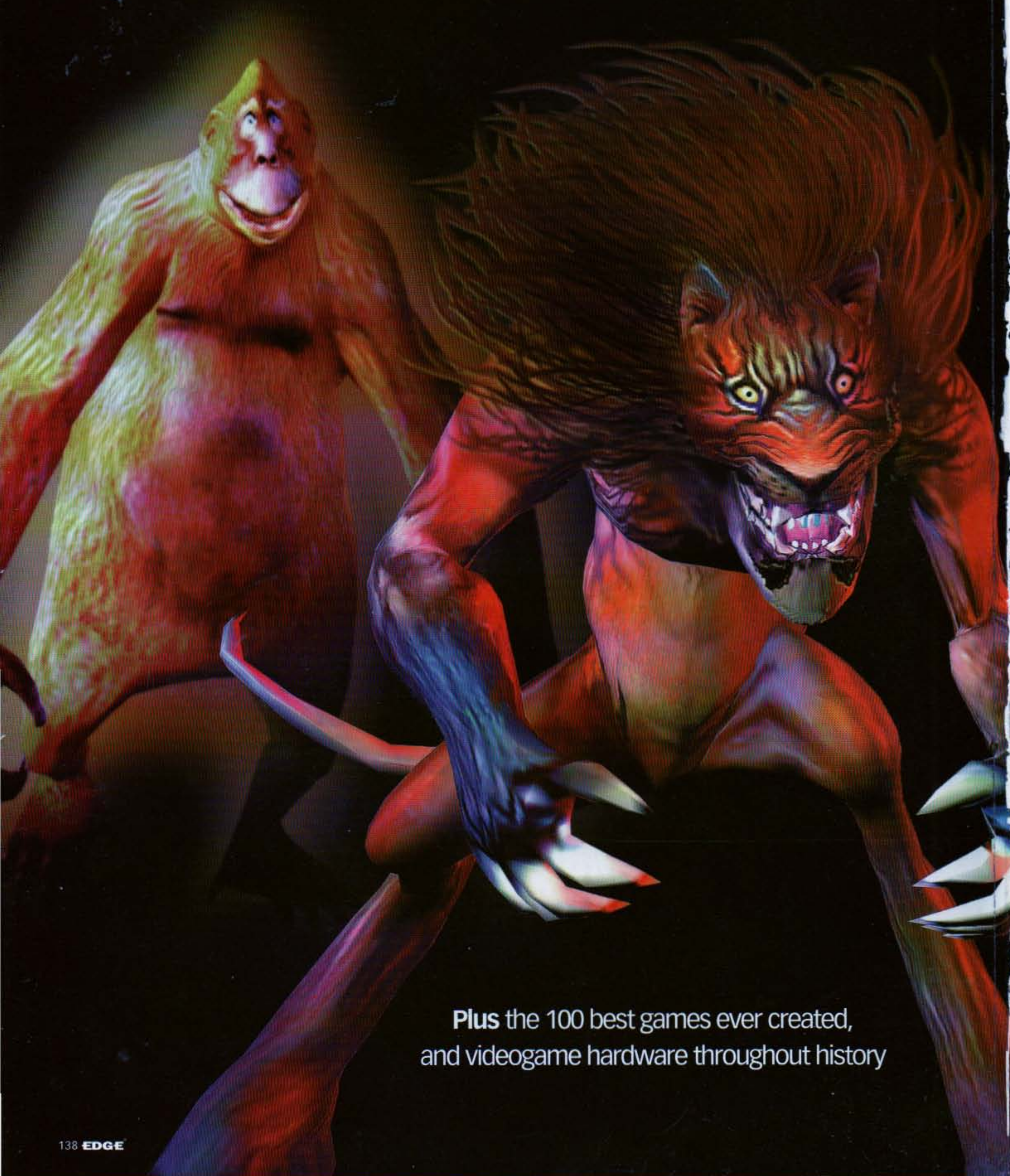
Actually, an infinite polygon engine is easy – all you need is either an infinitely slow framerate or an infinitely long preprocessing time. Or maybe just a good marketing department.

G Ushaw,
via email

Let's have a wild guess here: you're a coder, aren't you? Thought so.

Next month

Black and White – the game of the new millennium



Plus the 100 best games ever created,
and videogame hardware throughout history


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